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THE DIATONIC MODES
IN MODERN MUSIC

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JOHN VINCENT

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To
GLAREANUS
(1488-1563)
Whose Modal Theories
Influenced Four Hundred
Years of Music

Preface

WHEN GLAREANUS brought out his *Dodecachordon* in 1547 it had been apparent for a century and more that the traditional ecclesiastical modal theory did not square with the contemporary usage. Glareanus' purpose was to reduce the existing practice to a practicable theoretical formulation. He could hardly have realized to what degree his work was prophetic of the tonal (Major-minor) period. He could not have anticipated that his system of twelve modes would remain practically unrevised for four hundred years. It is a tribute to the validity of Glareanus' deductions and conclusions that his work was not only recognized as a true interpretation of his immediate past but also that his theories were so penetrating and so soundly based on and integrated with the developing and evolving musical phenomena that they remained authoritative for centuries even though musical styles changed radically.

Nevertheless by the beginning of the last century there were signs that even so cogent a theory as Glareanus' must eventually be reexamined. All during the nineteenth century the tonal horizons widened and with the coming of the twentieth century the process was greatly accelerated. The disparity between scale theory and practice was ever greater and the need for a new modal formulation became always more acute.

In an attempt to answer this need, I have made exhaustive researches into existing practice and have arrived at a formulation of eight *Diatonic Modes*. A further theory—the *Interchangeability of Modes*—is likewise founded on good usage by recognized composers of the past century or so.

A codification of practice has meaning for all musicians, be they performers, theorists, composers, historians, teachers, or students. A valid new theory not only explains and promotes understanding of what has been done, it also provides a solid and substantial observation point for surveying favorable paths for future progress. It is my hope that the theories I have advanced will have significance for these important matters.

In recording obligations, it is a pleasure to name George W. Chadwick, who gave me my first instruction in modal theory, and John Powell, who encouraged me to develop my own modal theories. I wish to record also my indebtedness to Walter Piston, whose penetrating criticisms did much to insure the validity of my ideas during the developing stage; to Dr. Hugo Leichtentritt and to Dr. Otto Kinkeldey for their interest and for reading the manuscript; to Roy Harris, who in many ways helped keep the project alive. I gratefully recall the assistance of the following institutions: the Music Library of the Boston Public Library, New York Public Library, the Music Division of the Library of Congress, the Bibliothèque Nationale of Paris, and the Staatsbibliothek of Berlin.

My greatest obligations, however, are to my colleagues in the Music Department at the University of California, Los Angeles, Professors Robert U. Nelson, Walter Rubsamen, and Laurence A. Petran, each of whom read the text and gave invaluable suggestions. To Mr. David Brower and other staff members of the University of California Press, I owe much for their careful supervision of all technical matters; and at Mills Music, Inc., to Mr. Mack Stark, Mr. Jack Ecoff, Mr. Norman H. Warembud, and the production staff, I owe a debt of gratitude for their unflinching cooperation and heart-warming enthusiasm. I wish to thank my secretary, Lillian Adams, for her great help with all manner of correspondence, and for typing the bibliography and index. Finally, I must acknowledge that the work could never have been finished without the inspiration and assistance of my wife, Ruth.

Los Angeles

December, 1950

J. V.

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THE DIATONIC MODES
IN MODERN MUSIC

Introduction

THIS WORK divides itself naturally into two parts which, although more or less independent, are nevertheless sufficiently related to be treated under the title *The Diatonic Modes in Modern Music*. The two divisions are roughly: (1) theory, and (2) history. Book One, *Theory*, has two parts: A Diatonic Theory of Chromaticism and Kindred Studies.

The interchangeability of scale forms above a single tonic for the enrichment of the melodic and harmonic means is not limited to the juxtaposition of the Major and the Minor modes, but also includes those diatonic scales which are the modern counterpart of the ecclesiastical modes. When applied to harmonic analysis, this mutual interchangeability offers a valid means for a simple and diatonic explanation of the relationship which certain chords (hitherto considered chromatic) bear to the tonic.

These chords have not lacked logical explanation either by traditional analysis, which resorts to temporary modulation and the *Ausweichung* (digression), or by the theories of half-modulation or parenthesis modulation (Piuatti), of substitute tones (Riemann), and of the secondary dominant system (Weidig and Piston). These systems have served too long and too well to be overthrown, and no attempt is made to disprove them. The author aspires only to present a new viewpoint and thus perhaps add one step to the progress of music theory.

Book Two, *A History of the Diatonic Modes*, comprises two parts: Early Systems and the Genesis of the Harmonic Modes. Although Book Two concerns chiefly the period since the rise of the major-minor system (1600-1900), a sketch of the previous scale history is included in Part One, for the purpose of orientation as well as to throw into relief the thread of diatony, which is one of the constants of occidental music.

The common denominator of the scales of Western civilization is their seven-tone diatonism. This characteristic links the τόνοι of ancient Greece, the eight modes of Pope Gregory, the twelve of Glareanus, and the two used almost exclusively for the past three centuries. Despite divergent mathematical formulae for tuning, and the differences in the theory of the function and relationship of the component tones, the framework of all our scales is an octave divided into five "whole" tones and two "half" tones, the latter a fifth or a fourth apart depending on the starting point of the reckoning. The several scale systems (Greek modes, Gregorian modes, Church modes, and so on) all derive from this basic scale pattern and its seven octave-species. For purposes of convenience, these basic scales will be called the *diatonic modes*.

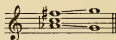
Departures from the basic diatonic forms are but mutations through the use of superimposed "chromatics." These chromatics (half-tones and sometimes even smaller intervals) have always been subservient to the diatonic scales and are thus not so much smaller subdivisions of the octave as they are subdivisions of the whole-tones of the diatonic modes. This statement encompasses the "genera" of Greek scale-theory, the accidentals of "Musica Ficta," and the chromaticism of major-minor practice.

Even after the general adoption of the major and minor scales and the practical eclipse of all others, which for convenience may be said to have occurred at the beginning of the seventeenth century, we find the so-called ecclesiastical scales persisting. To expose their course through this period, their eventual revival, and the factors involved is the purpose of the second part of Book Two.

The title chosen for this work, *The Diatonic Modes in Modern Music*, may suggest that the limiting qualification "diatonic" is an arbitrary one. True, there are many other scales found in music but, notwithstanding some superficial evidence to the contrary, the scale basis of the musical art of Western civilization is diatonic (the diatonic modes). Proof lies in the recorded history of the scale structure and in the great body of folk and art music now extant. Since these subjects cannot be treated adequately in the small space of an introduction, the reader is referred to the later chapters for a full exposition of the evidence.

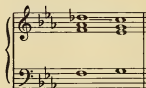
It must not be supposed, however, that there is no natural impulse toward chromaticism in Western music. Its functions, nevertheless, are complementary to the diatonic substructure. Instead of reducing the seven-tone series to twelve semitones, these smaller subdivisions of the octave, employed as harmonic tones in the major-minor system, are actually definitive auxiliaries of the Major (or Minor) mode.

Thus, for example, the chromatics in the traditional augmented-sixth chord define the dominant (fifth degree):



C Major

and the so-called Neapolitan sixth "leans" on the tonic:



C Minor

This will be more fully treated in the chapters on the major-minor system (Book One, pp. 6-15; Book Two, pp. 174-181).

It will be noted that the mode names employed follow Glareanus, who is credited with proving the existence of twelve modes instead of eight. The title page of his *Dodecachordon*¹ lists the scales as follows:

GLAREANI

Δ Ω Δ Ε Κ Α Χ Ο Ρ Δ Ο Ν

Plagij	Authentae
A Hyperdorius Hypermixolydius Ptolemaei	D Dorius
B Hypophrygius Hyperaeolius Mar. Cap.	E Phrygius
C Hypolydius	F Lydius Hyperphrygius Mar. Cap.
D Hypermixolyd. Hyperastius vel Hyperionicus Mar. Cap.	G Mixolidius Hyperlydius Mart. Cap.
E Hypoaeolius Hyperdorius Mart. Capell.	A Aeolius
G Hypoionicus	C Ionicus Porphyrio iastius Apuleius & Mar. Cap.
F* Hypophrygius Hyperlydius Politia, sed est error.	B* Hyperaeolius

The mode on B, here named Hyperaeolius and marked with an asterisk to show that it was rejected because of its diminished fifth, is usually given the designation, *Locrian*. The whole plagal category has been discarded in the modern period, since any useful purpose it served disappeared along with the *cantus firmus*, where it was mainly an academic distinction of melodic ambit.

¹ Henricus Glareanus, ΔΩΔΕΚΑΧΟΡΔΟΝ (Basle, 1547).

There are several other systems of mode nomenclature but the one chosen has several advantages:

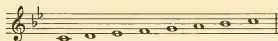
a) It is well known and widely used in Germany and in English-speaking countries. (In France three systems seem to be current: the traditional Roman Catholic Church numerical designation, a pseudo-Greek terminology, and a "white-note" characterization, i.e., *mode de ré*, *mode de mi*, *mode de fa*, etc.)

b) It is complete since it encompasses a scale on each of the seven diatonic degrees. (This important qualification is lacking in the pseudo-Greek listing as given by Koechlin in his admirable summary of the rules of counterpoint.²)

c) Once accepted, the names do not carry the inextricable preconceptions and ambiguities which inevitably accompany the Greek enumeration or the ecclesiastical classification by numbers. (It is clear that certain details about ancient Greek usage must forever remain nebulous, although everything known of the Hellenic period emphasizes the debt music owes to it. The Church mode numbers are too closely identified with certain functions of tones, i.e., traditional theoretical dominants, mediant, participants, absolute initials, regular and conceded modulations, cadences, etc.) Although the essential diatonism of our music has undergone comparatively little evolution since the earliest records, the superimposed internal configurations, that is, tonal functions and chromaticism, have gone through vicissitudes, and their manifestation in one era does not necessarily have more than superficial resemblance to that of another age. In this connection compare Greek chromaticism with that of Wagner, or the dominant of Gregorian Chant to that of César Franck. The history of music theory is a history of the revision of viewpoint in an attempt to meet the changing relationships of these variables to the constant of diatony. To clear the way for the present study, it has been thought well to divest the diatonic basis of music of its overlying complications in order to gain a new point of view.

d) The names *Dorian*, *Phrygian*, and so on have a solid historical justification since they have existed in their present meaning for more than a thousand years. It is true that they result from a misinterpretation of their original Greek significance, but the sanction of ten centuries cannot be overlooked.

e) The terms *mode of D* (for Dorian), *mode of E* (for Phrygian), etc. would serve very well but for two objections. First, they have no historical standing, and second, their employment would result in such complexities as *mode of D on C* (for C-Dorian) and *mode of F on A^b* (for A^b-Lydian).



Mode of D on C



Mode of F on A^b

This terminology proves very confusing in analyses where the mode changes frequently:

² Charles Koechlin, *Précis des Règles du Contrepoint* (Paris, Heugel et Cie), p. 132.

Moussorgsky, *A Night on Bald Mountain*.

f

Mode of E on D (D-Phrygian)

Mode of D on D (D-Dorian)

mp

p *f*

Mode of A on D (D-Aeolian)

Mode of G on D (D-Mixolydian)

For the foregoing reasons the nomenclature chosen seems the best of the several existing systems. It is certainly not advisable to attempt to invent a new set of symbols to add to an already confusing array.

BOOK ONE: Theory

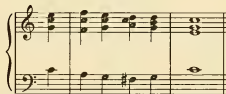
Part I: A Diatonic Theory of Chromaticism



Chapter I

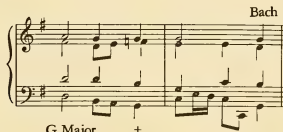
HARMONIC ANALYSIS: A BRIEF CRITIQUE AND A NEW THEORY

IT HAS long been recognized in harmonic theory that a tonality is not overthrown by a single chord which normally belongs to another key. The chord *d-f[♯]-a-c* in the following example does not upset the C-tonality in spite of the fact that it is V⁷ of G.



C Major +

In like manner the chord *g-b-d-f* does not indicate a modulation in the final cadence:



G Major +

Both of these types of harmonic progression are juxtaposed in the following excerpt. This only serves to emphasize that no real modulation is intended, since the key scheme would then be D-A-G-D, impractical in so short a space.



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Such apparent violations of key have been given various names which indicated their transient harmonic significance. Traditional theory treated them as fleeting modulations, considering that a real change of key was brought about only by a subsequent full cadence to affirm the new tonality. Piutti¹ recognized the ambiguity of such chords and called the effect "half-modulation" and "parenthesis modulation." The German term *Ausweichung* is quite descriptive of the digressive character. Riemann² explains the *Ausweichung* by a system of substitution (the substitute-klang).

¹Carl Piutti, *Regel und Erläuterungen zum Studium der Musiktheorie* (1883). See also D. G. Mason, "A Neglected Contribution to Harmonic Theory—Piutti's Parenthesis Chords," *New Music Review* (April, 1908), pp. 299-303.

²Dr. Hugo Riemann, *Harmony Simplified or the Theory of the Tonal Functions of Chords*, trans. the Rev. H. Beyerung (London, Augener and Co.).

Weidig³ and Piston⁴ are modern exponents of the parenthesis-modulation idea. Their system of "secondary dominant formations" recognizes as legitimate all chromatically built chords of the V⁽⁷⁾ type placed a perfect fifth above every degree of the major and minor scales except the leading tone. "Any degree of the scale, major or minor, (with the exception of the leading tone, a purely melodic note) may be preceded by its dominant without disturbing the tonality."⁵

These secondary dominants are thus related to the triads of the major mode: V, IV, II, VI, and III (also VI⁶₁, III⁶₁, and VII^{1b} borrowed from the minor). In minor the list is V, (V^{3b}), IV, (IV^{3b}), VI, III, and VII (subtonic). The secondary chords so formed are designated V⁽⁷⁾ of V, V⁽⁷⁾ of IV, etc., and normally resolve to the chord to which they are related. As an extension of the principle, the V⁽⁷⁾ of N⁶ (Neapolitan sixth) is allowed,⁶ but in 1833 Jelensperger⁷ had anticipated this by regarding the N⁶ as a "half modulation." Piston⁸ even recognizes the V⁽⁷⁾ of V of V and the IV of IV.

C Major I V⁶ V⁷ of V V⁷ of V V⁷ I

C Major I III⁶ VI IV of IV IV I⁶₄ V I

Part of the development in harmonic analysis has come about because of the inadequacy of the system previously in use: it was a clumsy technique which had to resort to continuous modulation to explain the relationship of certain chords. The fault lay in the narrow concept of key which regarded all but a few chromatic chords (augmented sixth, N⁶, etc.) as violations of the key. The increasing complexity of the harmonic materials forced a progressively broader view of the limits of tonality. With the wider harmonic outlook came two significant changes:

(1) More chords could be related to the tonic. Under the parenthesis-chord system of Piston and Weidig this is done by recognizing *relationships is once removed*.⁹ For example, two chords not ordinarily closely associated with the major-minor may become intelligible through an intermediate chord to which both are in simple relationship.

V of V

V

I

³ Adolph Weidig, *Harmonic Material and its Uses* (Chicago, Clayton Summy Co., 1923), chap. xvi.

⁴ Walter Piston, *Principles of Harmonic Analysis* (Boston, E. C. Schirmer Co., 1933).

⁵ *Ibid.*, p. 1.

⁶ Weidig, *op. cit.*, pp. 344-345.

⁷ Daniel Jelensperger, *Die Harmonie in Anfänge des neun-*

zehnten Jahrhunderts und die Art sie zu erlernen, trans. A. F. Häser (Leipzig, Breitkopf und Härtel, 1833), p. 34.

⁸ Piston, *op. cit.*, p. 45, (IV of IV). *Principles of Harmonic Analysis* does not mention V⁽⁷⁾ of V of V, but the expression is used in his classroom.

⁹ The V-of-V-of-V relationship is twice removed.

(2) More extended harmonic passages could be accounted for within a single tonality. This change only recognized in theory a fact long apparent to the ear: an established tonality is really difficult to overthrow; it persists until another is well-established and obscures the first in the consciousness. Here is an illustration of this persistence of a tonic:

G Major I IV V I Mixolydian VII [IV of IV] IV I

C Major I C = Lydian II [V of V] V IV⁶ I V I

Although the chords are identical, there is no doubt about the tonality of either, if considered separately. If we begin with C Major, the final chord must be C Major: the penultimate chord, G Major, is not satisfactory as a final. Similarly, to begin in G Major is to feel any other close unsatisfactory: we cannot add another chord (C Major) at the end.

The advantages of the broader conception of the limits of major-minor tonality are in the directness of perspective and comprehension. In the following example from Beethoven, the entire passage is heard in relation to the tonic D. The section containing accidentals may be regarded as a series of modulations only by a kaleidoscopic analysis which misses the point of the music, which is that the meaning is bound up in the relationship which the chromatic section bears to the D-tonic. In a manner of speaking, the middle part is harmonic color projected on the D background. A traditional analysis fails to show this, while an analysis by the parenthesis-chord system renders full account of the chord-by-chord relationships, yet constantly relates the whole harmonic texture to the ruling center of gravity (D).

Beethoven, *Quartet*, Op. 18, 3.
Finale.

I v⁷ I v⁷ I v⁷ VI (1 $\frac{1}{4}$) v⁷

The musical score for "The Rose Tree" is presented in two systems. The first system consists of four measures, each containing a treble and bass staff. The melody is written in the treble clef with a key signature of one sharp (F#) and a common time signature (C). The bass line is in the bass clef. Above the first measure, there is a note with a 'v' above it, indicating a vibrato or accent. Below the first measure, the Roman numeral 'I' is written. Below the second measure, the Roman numeral 'V7' is written. Below the third measure, the Roman numeral 'I' is written. Below the fourth measure, the Roman numeral 'V7' is written. The second system also consists of four measures, each with treble and bass staves. Similar to the first system, there are 'v' markings above notes in the first and third measures. Below the first measure, the Roman numeral 'I' is written. Below the second measure, the Roman numeral 'G V7 9' is written. Below the third measure, the Roman numeral 'I V7 of IV' is written. Below the fourth measure, the Roman numeral 'VI V of IV' is written. At the bottom of the page, the text 'I Pedal.' is written.

The musical score for 'The Rose Tree' is in G major (one sharp). The melody is in the treble clef, and the bass line is in the bass clef. The bass line features a chromatic passing tone between the first and second measures, moving from G2 to F#2. The harmonic analysis below the staff identifies the chords: [IV] (IV of IV), V⁷ of IV, 9/7 (IV), I (IV), chromatic passing tones, V⁷ of IV, and V⁷ of IV.

E minor II $\frac{6}{4}$ II $\frac{6}{4}$ VII $\frac{6}{4}$ (Vo)* V $\frac{7}{4}$
 III $\frac{6}{4}$ III $\frac{6}{4}$ of II of II

The musical score for 'The Rose Tree' is presented in two systems. The first system shows the beginning of the piece in D major and 4/2 time. The melody is in the treble clef, and the bass line is in the bass clef. The key signature has two sharps (F# and C#). The time signature is 4/2. The melody starts with a quarter note D, followed by a quarter note E, a quarter note F#, and a quarter note G. The bass line starts with a half note D, followed by a half note E, a half note F#, and a half note G. The second system continues the melody and bass line. The melody has a fermata over the final note. The bass line has a fermata over the final note. The key signature and time signature remain the same.

* The symbol V^o is used to designate a chord of dominant function in which the root is omitted.

The older method of analysis which uses transient modulation has at least one virtue: the diatonic character of the music is recognized in the figured bass. When a transient modulation is indicated, it suggests a diatonic scale on a related degree:

C I V⁶ D V⁷ G V-⁷ C V⁷ I

Its disadvantages are that, although it emphasizes the diatonic element, (1) it fails to recognize the relationship digressions bear to one another and to the established tonality; and (2) it resorts to too frequent modulation. The result is a lack of harmonic perspective. Specifically, the method recognizes the importance of the roles played by the subdominant and dominant chords in determining harmonic progression patterns. It has long been known that the march of harmony is strongest between chords whose roots are at the interval of a fourth or a fifth. What remained to be recognized was that the chords concerned in such progressions have relationships not unlike those of the true V-I and IV-I. The principles of the pseudodominant and pseudosubdominant tonal functions, although unformulated, were unconsciously applied by composers, and the theories of Weidig and Piston grew out of a *fait accompli*.

The primary concern of these theories is to account for the progressions involved, even at the risk of neglecting the relationship which the component chords bear to the tonic. The advantages gained through a fuller understanding of the progressions are not to be minimized, but certain drawbacks inherent in the system should be noted:

(1) The essential diatony of the harmony is slighted. (2) The V⁽⁷⁾ as a tonal function is overemphasized. (3) The limits to which the system may be permitted to extend seem somewhat arbitrary. This arbitrariness is probably what Piston has reference to when he says,

Although the use of such terms as II of IV, II of V, etc., would be stretching the bounds of tonality to perhaps an impossible extreme, there are many instances to be found in which the expression IV of V [sic] seems reasonable.¹¹

(4) Although easily within the bounds of tonality, the chords designated as *secondary* by the device " = of = " are not admitted to have a *primary* relationship to the center of gravity. Instead, as was shown earlier in the chapter, the relationship is only established through an intermediary.

(5) Where the chords called "V of V" or "IV of IV" do not proceed to the V or IV, justification for the nomenclature is lost, and these names serve no better than any arbitrary designation.

Fauré, *Pénélope*, Act III, Scene V.
Final cadence.



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It is the object of the present work to show that: (1) Through an extended concept of diatony, many chords in the parenthesis-chord system have a direct relationship to the tonic. In other words, certain chromatically conceived chords are actually diatonic. (2) A number of chords not now included in *common practice*¹² are well within the confines of tonality. (3) The complete diatonic system defines the limits within the bounds of tonality to which the juxtaposition of chords may be carried.

The "extended conception of diatony" is a principle which includes the *interchange of modes above a tonic* and the resulting increase of harmonic possibilities. Substantiation of this theory as an actuality will be the object of Chapters III and IV. Later, every chord of the expanded list will be illustrated from the music of recognized composers of the past and present.

The establishment of the theory of *interchange of modes* depends on a conception which grants tonality to each of the diatonic modes. Such a conception can hardly be controversial but, in an effort to avoid any possible misunderstanding about the subject, the following chapter provides a consideration of modality and tonality.

¹¹ Piston, *op. cit.*, p. 45 "IV of V" seems to be a typographical error. The context indicates that IV of IV was intended.

¹² An authoritative list of the chords of *common practice* is given in Piston's *Principles of Harmonic Analysis*.

MODALITY AND TONALITY: SOME DISTINCTIONS

THE BASIC scale term, *mode*, if divorced from any consideration of tonal function, means simply a *cyclical interval-succession-pattern in sound*. In Western European music this Schema may be represented graphically as follows (T = tone, S = semitone):

The seven component sounds in this basic pattern are called *tones* and are represented in notation by a series of lines and spaces called a *staff*. The term *tone* is also used to indicate the larger of the two kinds of conjunct interval in the pattern, the smaller being a *semitone*. *Major second* for the former and *minor second* for the latter are better terms: their meaning is not ambiguous.

The basic pattern is given the qualifying term *diatonic* (Greek *δια*, across or through, plus *τόνος*, tone). Although the term *diatonic* has come to be synonymous with the phrase *by conjunct staff-degrees*, it is principally used to denote *conformity of a scale to the Western European Schema*.

The seven tones of the *Schema* are designated by the first seven letters of the alphabet although the correspondence between the letters and the tones is an accident of history.



Western European Tonal Schema

For the purposes of serial enumeration any tone of the Schema may be chosen as a starting point. This may give the result:

cycle
D-E-F-G-A-B-C-D

Since the D was arbitrarily chosen each of the other tones may successively serve as initials.

1. D-E-F-G-A-B-C-D
2. E-F-G-A-B-C-D-E
3. F-G-A-B-C-D-E-F
4. G-A-B-C-D-E-F-G
5. A-B-C-D-E-F-G-A
6. B-C-D-E-F-G-A-B
7. C-D-E-F-G-A-B-C

These octave species, although not yet assigned musical functions, may be called *diatonic modes*, since each conforms to a cycle of the *Schema*.

At least in the West, the most primitive tonal function is the melodic *final* or *tonic*. Any tone of the *Schema* may serve in this capacity. It is impossible, however, to conceive a tonality consisting of but a single tone: at least one auxiliary tone is essential. Music having a tonic but in which the other tonal elements are at a minimum is only rudimentary: street cries and some Pentatonic melodies are illustrative.

After the tonic, the most important function is that of the *dominant*. Most often it is placed at the interval of a fifth above the tonic but, as in the plagals of the ecclesiastical modes, it may be the sixth, the fourth, or even the third. Its functions are: (1) to be conspicuous as a *note* in the melody and/or as a *chord* in the harmony, and so be definitive of the tonic and (2) to form the principal cadence by the progression (melodic or harmonic), *dominant to tonic*.

If the dominant is a fifth above the tonic, there may be a certain physical basis for its domination, but this cannot be claimed when it is placed at some other interval. In the latter case the ruling and

cadential powers of the dominant are wholly conditioned by conventionalized usage, and even with the fifth dominant this must be partly operative.

When the tonic and dominant of a mode have been assigned their respective roles and these have become established and conventionalized to the extent that their normal employment is well understood, anarchy has been banished from sound and order has taken the place of chaos. The tonal potentialities have been limited in order that those remaining can be more readily apprehended, and since they are less extensive, there is a corresponding gain in meaning. Specifically, we come to understand that in a tonal scheme, the two most important tones are the tonic and dominant, that they are mutually definitive, that progression from one to the other is cadential (dominant-to-tonic being the stronger), and that the tonic is the final. These are the least conditions of *tonality*, although many other established conventions may contribute.

According to this view, it is clear that the ecclesiastical modes have tonality, but it must be understood that it is a different tonality from that of the major-minor system of the past three hundred years. Furthermore, owing to the lack of uniformity in the matter of dominants and other tonal conventions, the strength and quality of tonality varied among the several modes. Thus Lydian tonality was weaker than some others because of its prominent tritone, and the Locrian was declared defective because of its diminished fifth.

Since the character of a particular tonality is the product of a certain set of formalized tonal usages, any change in these will produce corresponding mutations in that character. Such a modification occurred in the Phrygian mode when its dominant was shifted from the original *b* to *c*. Much more important was the metamorphosis by which the C-mode of Church theory (the Ionian) became the modern Major; but before this point is discussed some notice must be taken of the matter of intonation of the intervals of the scales.

Pythagorean tuning was in use until long after the rise of polyphony. In this system the whole tones were of the proportion 8:9, semitones 243:256, and thirds and sixths were classed as dissonant. Under the influence of polyphony this tuning began to be questioned and, after the tenth century, the "natural" third (4:5) gradually came into use. Zarlino (1517-1590) completed the process with his *senario* theory. Equal temperament is a still later development.

These changes undoubtedly altered the character of the scales, but the adoption of the new tuning cannot be said automatically to have given rise to the Major. Indeed, the Ionian mode still exists today despite the preëminence of the Major, although its effect is described, somewhat disparagingly, as *pseudo-modal*.

The Ionian mode of Glareanus, with its dominant on the fifth of the scale, and the modern major have the same diatonic form: T-T-S-T-T-T-S. Yet the difference between the two is marked. In spite of the fact that no trained musician would mistake the effect of one for the other, the matter has been difficult to put into words. The divergence between the two is based on the dissimilarity of internal tonal conventions. Further light will be thrown on this question later in the chapter by a summary of the conventions of tonality characteristic of medieval polyphony as contrasted with those of the major-minor system.

A physical basis of tonality rests on very questionable ground despite courageous attempts to establish it. Shirlaw¹ discusses each thesis from Rameau's through Riemann's and brings very damaging evidence to bear against their propositions. Rameau, however, was the first to formulate a complete theory of the major-minor system.² To him is due the credit for the practical idea that the V⁷ contains within itself the limits of the major mode key system and so unmistakably defines the key. This is very serviceable and is probably the most important single principle of major-minor tonality.

Fétis considered that the necessity of resolving the dissonance of the 3rd and 7th of the V⁷ determines the tonality of modern music, and taught that the modern major-minor tonality was the result of Monteverdi's³ supposed introduction of the use of the V⁷. He also says, . . . tonality resides in the melodic and harmonic affinities of the sounds of the scale, which determine the successions and aggregations of these sounds.

¹ Matthew Shirlaw, *Theory of Harmony* (London, Novello and Co., Ltd., 1917?).

² J.-Ph. Rameau, *Traité de l'harmonie* (1722); *idem*, *Démonstration du principe de l'harmonie* (1750).

³ J. F. Fétis, "Monteverdi," *Esquisse de l'histoire de l'harmonie* (Paris, 1830).

... Tonality then, is the order of melodic and harmonic facts which results from the arrangement of sounds in our Major and Minor scales; if even one of these sounds were to be placed differently, tonality would assume another character, and the harmonic results would be quite different . . .⁴

Shirlaw makes the following statements about Fétis' definition:

These remarks have been considered by not a few besides Fétis to be very profound and to betray a deep insight into the nature of music and harmony. In reality they are very superficial. Fétis asks us to believe that it is the scale which determines harmony and harmonic succession, whereas the reverse is the truth, as every musician knows who is acquainted with the history and development of the Church modes. These Modes, quite different as regards the arrangement and proportion of sounds from our modern modes, were, under the influence of harmony, gradually altered until they assumed the form of our Major and Minor modes. It would be correct to say that harmony banished these old modes out of existence.⁵

This final declaration may be true if we correctly interpret the phrase "old modes" but the whole thesis of the present work assumes the present-day existence of modes identical in their diatonism with those called "the ecclesiastical modes."

If Fétis was too specific in assigning tonality only to the major-minor system, Schönberg is too general when he says,

It [tonality] has always been the referring of all results to a center, to a fundamental tone, to an emanation point of tonality, which rendered important service to the composer in matters of form. All the tonal successions, chords, and chord-successions in a piece achieve a unified meaning through their definite relation to a tonal center and also through their mutual ties.⁶

This statement does not deny tonality to modes other than the major-minor, but it makes no distinction between different kinds of modes. Helmholtz specifically includes the modes of the Greeks and the earliest Christian period and emphasizes the importance of the final to the tonality.

... As the fundamental principle for the development of the European tonal system the whole mass of tones and the connection of harmonies must stand in close and always distinctly perceptible relationship to some arbitrarily selected tonic, and the mass of tone which forms the whole composition must be developed from this tonic, and must finally return to it. The ancient world developed this principle in homophonic music: the modern world in harmonic music.⁷

Piston's statement about tonality even more clearly includes the diatonic modes:

The presence of a center of gravity, or tonic, being the sole requisite for the presence of a tonality, it will be seen that the same tonality may be given a large number of variations in the makeup of its scale.⁸

Recognizing a neglected point in tonality definitions, a distinction between the melodic and harmonic elements, Yasser still does not show the implications of the idea.

Tonality is a principle which organically and tonocentrically unites the melodic and harmonic functions of a certain number of systematically arranged sounds as most simply represented in a musical scale.

To expand this definition and describe the two fundamental aspects in reference to our present (diatonic) system which is governed by the above principle, we may add that the tonal center represents a single note (tonic) from the melodic point of view, and a chord of three notes arranged by thirds (tonic triad) from the harmonic point of view. Again, that in the melodic aspect this system manifests a characteristic distribution of its seven regular (diatonic) degrees within an Octave, forming various chains of whole steps and half steps (Modes) . . . Finally, from the harmonic viewpoint this system divides all its possible tonal combinations into two distinctly opposed groups of consonances and dissonances, the latter inevitably "requiring" resolution into the former.⁹

All the usual definitions of tonality have a certain logic, but there seems to be a general lack of recognition of the differentiations which must be made between a broad, comprehensive formulation and the more particularized, exclusive statements dealing with existing subdivisions of tonality. In the absence of definitions which take cognizance of these distinctions, the following definitions are proposed.

General Tonality is that principle by which a mental grasp of the musical texture is maintained through melodic and/or harmonic conventions relating all component tones to one of their number which is thus the *tonal center* and ordinarily the *final*. The conventions may or may not have physical bases.

Tonality in Plain Chant is a system by which a mental grasp of the unaccompanied melodic line is maintained through a system of linear tonal conventions. Conspicuous among them are the *final* or *tonic*,

⁴ *Idem, Traité complet de la théorie et de la pratique de l'harmonie* (Paris, 1844), p. 249.

⁵ Shirlaw, *op. cit.*, p. 337.

⁶ Arnold Schönberg, "Problems of Harmony," *Modern Music* (May-June, 1934), p. 177.

⁷ H. L. F. von Helmholtz, *Sensations of Tone*, trans. A. J. Ellis (London, 1883), p. III, chap. 13.

⁸ Piston, *Principles of Harmonic Analysis*, p. 60.

⁹ Joseph Yasser, *A Theory of Evolving Tonality* (American Library of Musicology, New York, 1932), p. 331.

the dominant *reciting note*, the *absolute initials*, the *mediant*, and the stylized final cadence: a progression to the *final* from the note immediately above. It thus only makes use of the melodic phase of the general principle of tonality.

Tonality in Renaissance Polyphony is a system by which a mental grasp of the melodic and harmonic texture is maintained partly through the methods of unaccompanied plain chant which apply mainly to the *cantus firmus*, and partly through certain added harmonic conventions whose function is to relate the component triads to the triad of the *final* which has taken the place of the simple final. The dominant triad must be conspicuous; the progression *dominant triad to tonic triad* becomes the principal cadence; there are other conventional cadences on the important degrees of the scale; and the final cadence must usually be perfect, that is, the tonic *note* in the top voice as well as in the lowest. It is important to remember that in spite of these harmonic results, the whole outlook was still horizontal, not vertical: each of the voices was regarded as a melody.

The dual nature of this tonality should be noted because it was undoubtedly a factor in the eventual capitulation to the major-minor system.

Major-Minor Tonality is a system by which a mental grasp of the musical texture is maintained through a very circumscribed and highly characteristic harmonic (vertical) means of relating all melodic and harmonic elements to the tonic or its triad. Among the differentiae are:

a) Cadential conventions:

- (1) V-I and IV-V-I are the normal formulae.
- (2) The major third of the V normally progresses up to the tonic and acts somewhat like a red arrow pointing to it.
- (3) The seventh of the V has a normal resolution downwards to the third of the tonic.
- (4) The arresting I_4^{\sharp} is normally used before the V in the cadence.

b) Restricted are the progressions II-I, V-IV, VI-V, and any extended employment of the secondary triads II, III, VI, and VII^o.

c) The chromatic conventions require that each chromatic note or chromatic chord lean on some one of the normal triads and thus make the relationship clear.

Quite arbitrarily the descriptive term *Tonal* has been applied to the music written in major-minor tonality and observing its conventions. The three centuries of major-minor music is known as the *Tonal Period*. Any deviation from the established conventions of this tonality are called *extra-tonal* or *modal*. *Pseudo-modal* is the term used to designate emphasis of the secondary chords II, III, VI, and VII^o in the Major mode, which results in a weakening of its *tonal* quality.

To the three subdivisions of General Tonality (tonality in plain chant, tonality in Renaissance Polyphony, and major-minor tonality) must be added one other kind: the tonality of the diatonic modes in contemporary use. As will be shown later in Book Two, all the diatonic modes are to be found in the music of the present epoch. Their scale types are the modern counterpart of the ecclesiastical modes but there the similarity ceases: the plagal forms have disappeared, the dominants of the Phrygian and Locrian are no longer placed on the sixth degree, and most of the old conventions of harmony and cadences have been superseded. Certain conventions of the major-minor system have been imposed upon these scales: the dominant is always a fifth above the tonic, the texture is essentially harmonic (vertical) instead of contrapuntal (horizontal), and the dissonances of the seventh and ninth are used freely (subject to the same principles of resolution which apply to such dissonances in Classical harmony). These scales then may be termed Harmonic Modes,¹⁰ since their tonality is the result of superimposing Classic harmonic formulae on the diatonic scales known as Lydian, Mixolydian, Dorian, Aeolian, Phrygian, and Locrian.

If one cannot grant tonality to the modes named above without further proof, the matter may be considered as a hypothesis, and agreement reserved until there has been submitted the additional evidence embodied in Chapters III and IV on the principle of *interchangeability of modes*.

¹⁰ The genesis of the Harmonic Modes is the subject of the second part of Book Two.

Chapter III

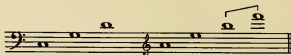
THE DIATONIC MODES: THE ORDINAL AND LATERAL INDICES

EVEN THE ancient Greeks recognized that the interval of a fifth had great significance for music. Since their time tuning has been based on a series of fifths. Organum used the fifth and its inversion, the fourth, and so it became the first interval of polyphony. The dominants of five of the six recognized authentic Church modes were placed on the fifth of the scale, and in the major-minor system the fifth rules supreme.

A favorite device for "explaining" the derivation and ascendancy of the major scale is to refer to a series of seven perfect fifths which may be reduced to C Major scale form:



The question which has always been embarrassing for the theory is: Why does the scale begin on *c*, the second component of the series, instead of the first? In order to avoid this stumbling block it is sometimes said that the series begins on *c* and ends on *f*:



The final fifth is diminished and this is said to "close the series in order to prevent its continuing indefinitely." In spite of the neatness of this explanation it is clearly an evasion because the series is not completely composed of perfect fifths.¹

No theorist has demonstrated by means of the series of fifths that the C-Major is but one scale of a complete diatonic scale system. The reason that the major scale begins on the *second fifth of the series* becomes clear if we reduce the component tones of a series of seven perfect fifths to the compass of one octave and do this seven times by adopting each of the tones in turn as a beginning. There will then be formed the seven diatonic scales known as Lydian, Major, Mixolydian, Dorian, Aeolian, Phrygian, and Locrian, respectively.

¹ Specific citations are not given in this brief mention of the subject. It is sufficient to say that the series of perfect fifths as a possible theoretical basis for the relationship of the tones of the major scale has tempted every theorist from Rameau to Riemann.

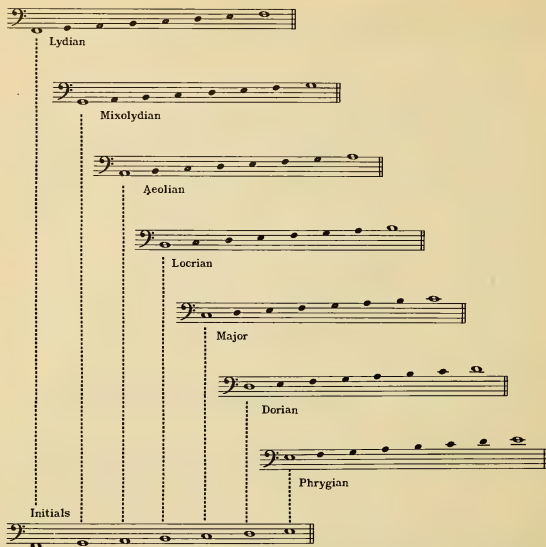
The diagram illustrates the seven modes of the diatonic series beginning on F, arranged in a descending staircase pattern. Each mode is shown on a musical staff with its notes and a label. Vertical dotted lines connect the first notes of each mode, demonstrating that they form a diatonic series starting on F.

- F : Lydian** (Bass clef, notes: F, G, A, B, C, D, E, F)
- C : Major** (Bass clef, notes: C, D, E, F, G, A, B, C)
- G : Mixolydian** (Bass clef, notes: G, A, B, C, D, E, F, G)
- D : Dorian** (Treble clef, notes: D, E, F, G, A, B, C, D)
- A : Aeolian** (Treble clef, notes: A, B, C, D, E, F, G, A)
- E : Phrygian** (Treble clef, notes: E, F, G, A, B, C, D, E)
- B : Locrian** (Treble clef, notes: B, C, D, E, F, G, A, B)

At the bottom, a final staff shows the diatonic series starting on F in both bass and treble clefs: F, G, A, B, C, D, E, F.

If the initials of the above scales are written in scale form beginning on "F", a diatonic series of initials is formed. This makes a convenient table of the tonics of the seven modes. Each of these tonics is, of course, the first notes of its respective mode, and all the seven modes in this presentation are made up of the same diatonic series. Since the initials or tonics themselves are in diatonic order, the table produced is called the *Ordinal Index*.

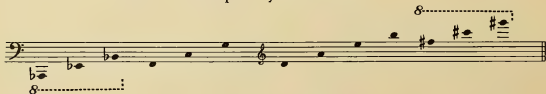
Ordinal Index



The liaison between the modes of the Ordinal Index is comparable to that of Major and its *relative Minor*. Thus A-Aeolian is the *relative Aeolian* of C-Major, and its *relative Phrygian* is E-Phrygian; G-Mixolydian is the *relative Mixolydian* of D-Dorian, and so on.

Such relationships, however, involve a change of tonic: in order to shift from one mode to another in the Ordinal Index there must be a corresponding modulation. In other words, although the component tones of the musical texture remain the same, the tonal center of gravity is moved from one to another of these notes. The converse of this operation is to retain the tonic while substituting another of the scales for the original. This is *interchange of mode above a tonic*,² and the relationships in this category are those of the Lateral Index, which is derived as follows:

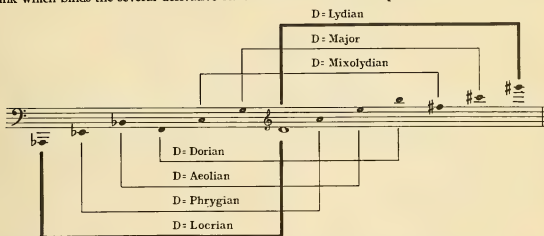
If we continue a series of fifths until the cycle is complete, that is, until the first tone recurs, there will be thirteen integrants which may be represented thus:

Complete Cycle in Fifths³

² See chap. iv for further discussion of the interchange of mode.

³ Note that g^\sharp is the enharmonic equivalent (tempered scale) of a^b .

Any group of seven⁴ consecutive tones from this cycle will have one tone which is common to all: the middle tone (*d* in this case). If taken as the common tonic of the seven possible modes (by a process which is the converse of that described in the derivation of the Ordinal Index), this center tone *d* becomes the link which binds the several derivative scales into lateral relationships.



By reducing the modes to their scale forms and placing them above the common tonic *d*, the juxtaposed scales form a convenient table which may be called the *Lateral Index*.

Lateral Index

								Natural Signature
D = Lydian								
D = Major								
D = Mixolydian								
D = Dorian								
D = Aeolian								
D = Phrygian								
D = Locrian								

This index constitutes the theoretical basis of the principle of *Interchangeability of Mode* above a single tonic. Further consideration of the principle and proof of its contemporary existence and use will be found in the next chapter.

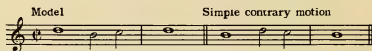
⁴ Seven tones are necessary to form a complete diatonic scale.

It will be noted that no mention has been made, of the Minor mode. This omission is not an oversight, but, in agreement with most writers on the subject, the Minor mode is here considered to be derived from the Aeolian (or Dorian) scale, the seventh degree of which has been altered to permit the Major mode dominant-seventh chord. (The matter is fully treated in Book Two, Chapter xx.)

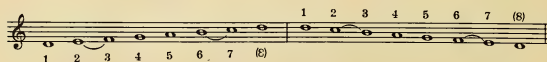
Before concluding the discussion of modal theory it seems logical to dispose of one other related point, in spite of the fact that, strictly speaking, it is something of a digression.

Simple inversion of theme has been a stock device of composers at least since the Flemish schools of the fifteenth century; but if there was any early recognition of exact inversion of mode, it was a closely guarded secret which died with its jealous guardians. In his *Musical Offering* and *Art of the Fugue* Bach used inversions but these were not of the modal type, being confined to the two kinds described by Fux in the *Gradus Ad Parnassum* of which the original edition appeared in 1725.

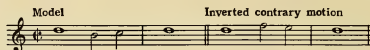
This inversion can be made in two ways: by simple contrary motion, and by inverted contrary motion. The simple contrary motion is made when the self-same notes are merely turned upside-down so that those notes which first ascended, now descend. This is done without the slightest attention to the semitones. For example, see that which has been given so often:



The other kind of inversion is made by turning the notes over in such a way that semitones remain semitones and tones remain tones. The exact manner in which this is done is shown in the following illustration.



Compare the ascending notes at the left with those descending at the right: When D is inverted, it remains D; E inverted becomes C; F inverted becomes B; G becomes A; etc. This process applied to the original model will be as follows:⁵



Various writers have discussed one phase or another of inversion. The subject is treated in Rousseau's *Dictionnaire* (before 1740) in the article "Système" written by Serre and Morambert. To Serre must go credit for being the first to note that the Phrygian mode is the inverse of the Major,⁶ although he calls the former mode "semi-mineur" because of the minor second and minor third at the bottom of the inversion.



The subject was not mentioned again until a century later when it was recognized by a number of German theorists.⁷

⁵ Johann Joseph Fux, *Salita al Parnasso*, trans. into Italian by Alessandro Manfredi (Capri, 1761), p. 181.

⁶ Jean Adam Serre, Letter appended to *Essai sur les Principes de l'Harmonie* (Paris, Pault Fils, 1753), pp. 143-144.

⁷ H. L. F. von Helmholtz, *Lehre von den Tonempfindungen*

als: *physiologische Grundlage für die Theorie der Musik* (1863). Arthur von Oettingen, *Harmoniesystem in dualer Entwicklung* (1866). Dr. Hugo Riemann, *Vereinfachte Harmonielehre* (1893). Hermann Schröder, *Die symmetrische Umkehrung in der Musik*, Beiheft 8 der Publikationen de I M G (1902).

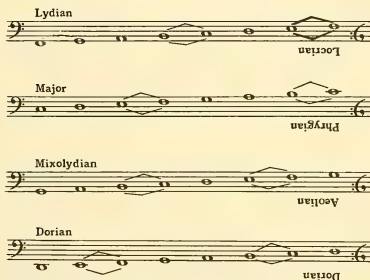
Bernhard Ziehn⁸ carried the idea one step further in demonstrating that the Dorian is an inversion of itself, the Aeolian inverts to Mixolydian, and the Phrygian is the antithesis of the Ionian or Major. For some reason he omits mentioning that the Lydian and Locrian are inverted forms of each other. Otterström, however, gives the following list, which is complete.⁹

When inverted

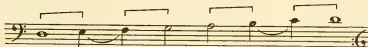
Ionian	becomes Phrygian.
Dorian	remains Dorian.
Phrygian	becomes Ionian.
Lydian	becomes Locrian.
Mixolydian	becomes Aeolian
Aeolian	becomes Mixolydian.
Locrian	becomes Lydian.

He attaches no importance to the fact for he adds, "These curiosities belong to the realm of amusement. . . ."¹⁰ Whether or not this is true may depend on the point of view, but from the standpoint of the composer, who should be aware of and take into consideration every possibility offered for the development of thematic material, the statement is misleading.

The inversion correspondence between the modes is most simply illustrated by the following *Spiegelbilder* (retrograde inversions).



Apparently no one has demonstrated that the whole diatonic system is symmetrically invertible. The Dorian with its identical tetrachords



forms the center, since it inverts without changing form. The Lydian, the most major of the three major modes (those with a major third) since every scale degree is at its maximum distance above the tonic, is the mirrored reciprocal of the most minor mode, the Locrian.

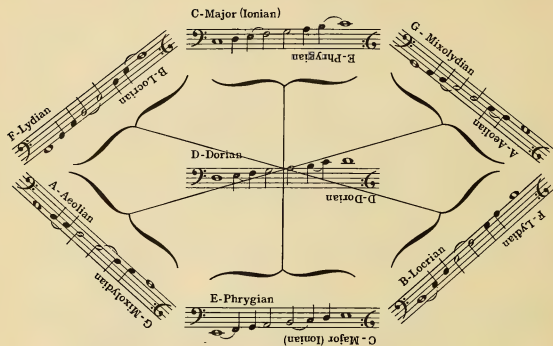
The two following diagrams illustrate the symmetrical invertibility of the complete diatonic system. The first is concerned with the Ordinal Index, the second with the Lateral Index.

⁸ Bernhard Ziehn, *Canonical Studies; A New Technic in Composition* (Milwaukee, Wm. A. Kaun Music Co., 1912), p. 3.

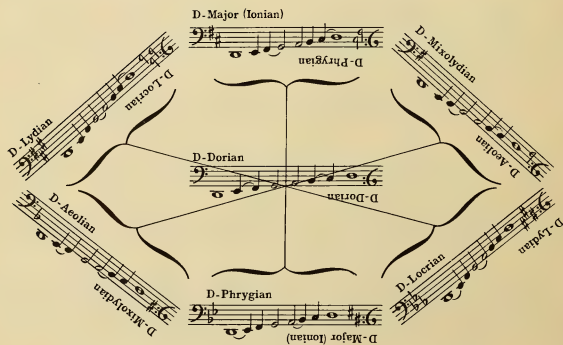
⁹ Thorvald Otterström, *A Theory of Modulation* (Chicago, University of Chicago Press, 1935), p. 131.

¹⁰ *Ibid.*

SYMMETRICAL INVERSION OF MODES

Ordinal Index

SYMMETRICAL INVERSION OF MODES

Lateral Index

Chapter IV

INTERCHANGEABILITY OF MODE

INTERCHANGEABILITY OF MODE may be defined as: the substitution of any diatonic scale for another yet maintaining a single tonic. In effect, this means that any one of the diatonic scales may take the place of any other above any given tonic. For example, for the Major mode (say on tonic D) may be substituted the tonic Minor, the tonic Aeolian, the tonic Phrygian, and so on.



So far as the free alteration of major and minor are concerned the practice is recognized in theory and has long been in use.

Strange, that one should feel major and minor as opposites. They both present the same face, now more joyous, now more serious; and a mere touch of the brush suffices to turn the one into the other. The passage from either to the other is easy and imperceptible; when it occurs frequently and swiftly, the two begin to shimmer and coalesce indistinguishably.¹

¹ Ferruccio Busoni, *Sketch of a New Esthetic of Music*, trans. Dr. Th. Baker (New York, G. Schirmer, 1911), p. 21.

It is clear that the new minor mode, borrowing its upper tetrachord (and thus the essential elements of its perfect cadence) from the newly born major, is but another form of that principal scale. The day the Dorian consented to adorn itself with a sharp, it lost its individuality; it accepted being amphibious: major, and thus modern, in the upper part; minor, and antique, in the lower.²

The Dorian mode [the original minor] . . . is not even a minor tinged with major, it is rather a major tinged with minor. It is not, morphologically, a species: it is a variety.³

The prevailing idea in recent years with regard to chords in general is that they may be used interchangeably between major and minor. . . .⁴

Piston makes the following analysis of an excerpt from the second movement of Dvorák's *Symphony No. 5*:

Dvorák, *Symphony No. 5*, II.

Db III V⁶ of II III I VI IV I

The above example furnishes an excellent illustration of the alteration of chords from the minor and major modes in the same tonality. The first, third and sixth chords are derived from the minor mode, whereas the second, fourth, and seventh chords are associated with the major mode.⁵

Rameau regarded the minor not as an independent scale but as one related to, and deriving its treatment from the major.⁶ For these reasons, one was at liberty to substitute, where the expression demanded it, the tonic minor for the major. In Lesueur's opera *La Caverne* at the words "quel triste" there is a sudden change to minor.

Lesueur, *La Caverne*, Act II.

G Major —————

G Minor —————

Doubtless for similar reasons Brahms, sometimes adopted the same procedure.

² Maurice Emmanuel, *Historie de la Langue Musicale* (Paris, Librairie Renouard, 1911), II, p. 292.

³ *Ibid.*, II, p. 345.

⁴ Horace Alden Miller, *New Harmonic Devices* (Boston, Oliver Ditson Co., 1930), p. 19.

⁵ Piston, *Principles of Harmonic Analysis*, p. 39.

⁶ Rameau, *Traité de l'Harmonie*, II, chap. 21.

Brahms, *Symphony No. 2, III.*

G Major ————— G Minor ————— G Major —————

G Minor ————— G Major —————

Brahms, *Die Trauernde*, Op. 7, No. 5.

Lasst die drei Ro - sen stehen, die an dem

p *f* *p*

Minor Major Minor

Kreuz - le blühn: heut ihr das Mäd - el kennt

f *p*

Major

Brahms, *Sextet for Strings*, Op. 36, I.

G Major _____ G Minor

_____ G Major

By reason of its descending form, the Minor mode includes the Aeolian and so establishes its interchangeability in traditional harmonic practice.

Lesueur, *Ossian*, Act IV.

C Aeolian _____ C Minor

Gretchaninov, *Sun and Moon*, Op. 16, No. 2.

C Minor

C Aeolian _____ C Minor

Although the ascending melodic form of the minor scale has the major sixth degree, it is not clearly Dorian because of the major seventh degree. Riemann, however, gives more than a hint that he considers it interchangeable with the Dorian.

... The major sixth in the minor scale (raised third of the minor subdominant), if used unnecessarily, *without modulation* and without melodic rising to the third of the major upper dominant, will always produce turns like those peculiar to the Dorian mode of the fifteenth to the seventeenth century. . . .⁷

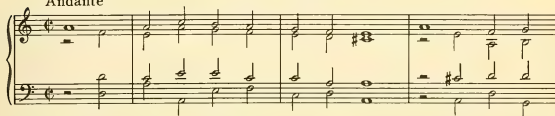


A Minor

More practical evidence that the Dorian is capable of being interchanged with other modes above the same tonic is given by Brahms.

Brahms, *Vergangen ist mir Glück und Heil*,
Op. 62, No. 7.

Andante

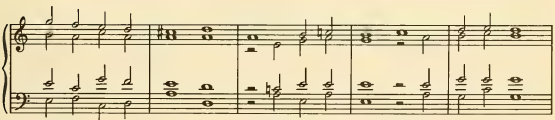


D Dorian

D Minor



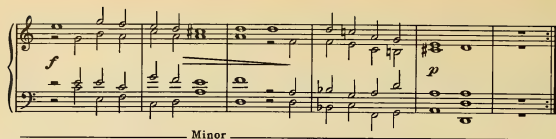
Dorian



Minor

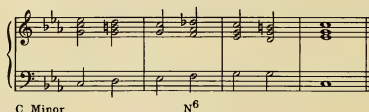
Dorian

⁷ Riemann, *Harmony Simplified or the Theory of the Tonal Functions of Chords*, pp. 92-93.



It is a remarkable fact that "... very few theorists [before 1900] suggest that the lowered second of the scale [in the N⁶ chord] is probably a remnant of the Phrygian Mode."⁸ There are, however, at least three theorists who were ahead of their time in their manner of construing the Neapolitan sixth chord:

First, Jelensperger,⁹ who considered the chord a "half-modulation":



Second, Tiersch,¹⁰ who regarded all the following as belonging to one key without modulation:



Third, Riemann, who made the following observations:

The latter chord (A minor: d-f-b^b) is known by the name of the *Chord of the Neapolitan sixth*. . . We leave the chord its name, of course, but are clear on this point, that the introduction of the note characteristic of it (the minor second of the minor scale) makes the scale resemble the *Phrygian*. . .¹¹



⁸ V. L. Jones, "The Relation of Harmonic Theory and Practice from Rameau to 1900" (Doctorate Thesis, Harvard University, MS., 1934), p. 483.

⁹ Jelensperger, *Die Harmonie im Anfänge des neunzehnten Jahrhunderts und die Art sie zu erlernen*. p. 34.

¹⁰ Otto Tiersch, *System und Method der Harmonielehre* (1868).

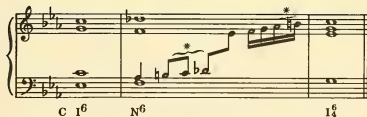
¹¹ Riemann, *op. cit.*, pp. 92-93.

Contemporary writers, however, have not failed to note this suggestion of the Phrygian.

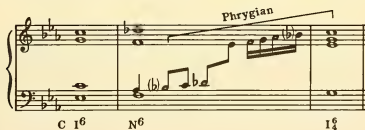
... The probability is that this chord (the Neapolitan sixth) was taken over from the Phrygian scale, since the second degree in this minor scale is one half-tone above the tonic and has a major triad.¹²

The early form of the Neapolitan Chord was probably from the Phrygian scale where it occupies a position a half step above the initial note.¹³

Curiously, complete scale passages in conjunction with the N^6 chord are not to be found in the works of the older composers. This is a development which has taken place only within comparatively recent times. Most composers, unable to use the leading tone with the chord because of the resulting augmented second and diminished third,

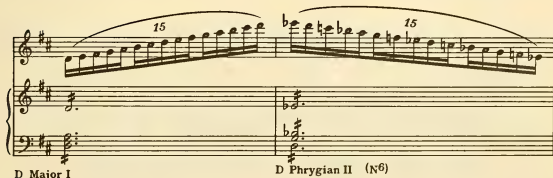


and apparently unwilling to use the subtonic to correct this, since the scale would then become Phrygian



(a form incompatible with major-minor habits of thought), solved the problem by avoiding either ascending or descending scale passages at such points. Freed from former hampering viewpoints, contemporary writers unhesitatingly write scales over the N^6 with the result that interchangeability of mode includes the Phrygian.

Sibelius, *Violin Concerto*.



¹² Otterström, *A Theory of Modulation*, p. 1.

¹³ Miller, *New Harmonic Devices*, p. 18.

15

15

D Major I

D Phrygian II (N^6)

This block contains two musical systems. The first system shows a melodic line in the treble clef with a 15-measure phrase in D Major, followed by a 15-measure phrase in D Phrygian II (N⁶). The piano accompaniment in the bass clef consists of chords. The second system continues the piano accompaniment for both modes.

8

D Major I

This block shows a musical system for D Major I. The treble clef has a melodic line with a 8-measure phrase. The piano accompaniment in the bass clef consists of chords. The system ends with a double bar line.

The source of the Phrygian is not necessarily the N^6 : it frequently appears melodically or in connection with other chords.

Rimsky-Korsakov, *Scheherazade*, No. III.

26

G Major

G Phrygian VII⁷

G Major I

32

G Phrygian VII⁷

G Major I

This block contains two musical systems. The first system shows a melodic line in the treble clef with a 26-measure phrase in G Major, followed by a 32-measure phrase in G Phrygian VII⁷. The piano accompaniment in the bass clef consists of chords. The second system continues the piano accompaniment for both modes.

The scale which most naturally accompanies the N^6 is not always felt to be the Phrygian: quite often the following form (Locrian) is used in conjunction with it.

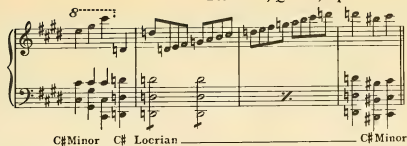
Locrian

C I^6

N^6

I_4^6

This block shows a musical system for the Locrian scale. The treble clef has a melodic line. The piano accompaniment in the bass clef consists of chords. The system is labeled with 'Locrian' and 'C I⁶ N⁶ I₄⁶'.

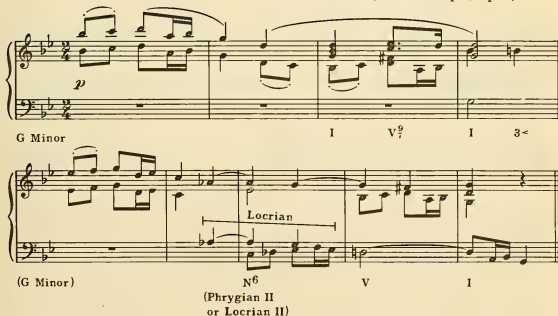
Beethoven, *Quartet*, Op. 131 VII.

Only one tone (*c*) of the Locrian scale is missing in the first measure of the following Sibelius excerpt. The essential *a*^b is quite prominent.

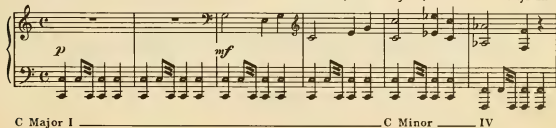
Sibelius, *Symphony No. 2*, II (coda).

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The *d*^b passing tone of the following example makes it also indisputably Locrian.

Smetana, *Polka Poetique*, Op. 8, No. 2.

In the "March and Hymn" from *Les Troyens* by Berlioz the Locrian scale occurs in complete form. The accompanying harmonies are also Locrian, one chord, the minor V^{9}_{7} which, however, has somewhat the character of a passing chord.

Berlioz, *Les Troyens*, "March and Hymn."

C Locrian Scale

C Locrian (N6) II I⁶ [Minor] Locrian [V⁶] III⁶ II⁴ VI II⁶ Major [I⁴] V I

The Locrian then must be admitted to the list of modes which are interchangeable.

In like manner, scales employed with a IV of IV or V⁷ of IV must be Mixolydian, those above V⁷ of V must be Lydian.

... The minor seventh in the major scale, introduced *without modulation* and without the third of the minor subdominant following in the same part, will produce peculiarities of the Mixolydian.¹⁴

C

C Mixolydian

C IV of IV IV

C Mixolydian

C I VI V⁷ of IV IV V I

Saint-Saëns, *Coeli Enarranti*, No. IV, Op. 42.

F Mixolydian (Scale)

F I [V⁷ of IV]

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¹⁴ Riemann, op. cit., pp. 92-93.

Sullivan, *The Golden Legend*

C V⁷ I V⁷ of IV V⁷ of V V⁹₇ I⁶

C Lydian Scale

The Mixolydian scale sometimes has its origin in chords other than the IV of IV or the V⁷ of IV: the final cadence of Grieg's *Piano Concerto* is a case in point. The chord here is a true Mixolydian V⁷ and resolves directly to the tonic. (For further discussion of this chord see Book One, chap. x.)

Grieg, *Piano Concerto*, Op. 16, III.
Final cadence.

Piano

Orch.

A I Mixolydian V⁹₇ I

col *Sua basso*

V [Mixolydian] V⁹₇

I IV I

The foregoing examples were chosen because each exhibits but a single change of mode. Such an arbitrary specification was imposed for the sake of clearness but now that the bare exposition has been concluded, additional evidence is offered in the form of more extended excerpts. Some of these contain several mode changes, and although most of the modes are defined horizontally, that is, either melodically or by scale, in some cases it will be necessary to refer to the component tones of the harmony in order to reveal the mode.

"Sally Brown," *Journal of the Folk-Song Society*,
1914, p. 43.

I shipped on board of a Liv-er-pool lin - er

D Aeolian (?) Major

Way - ho, a - roll - ing go. And we shipped on board of a

Liv-er-pool lin - er for I spent my mon-ey 'long with Sal-ly Brown.

Mixolydian Aeolian (?)

Used by permission of the English Folk Dance and Song Society.

Dubois, *Noël*.

A Aeolian Dorian Minor

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Strings

Piano

col Soprano e a basso

D Minor _____ D Aeolian _____

D Minor _____

D Minor _____

Glazounov, *Suite pour Quatuor d'archets*,
Op. 35, No. 3.

Violin I

pizz.

Violin II

Cello

D Dorian _____

Viola

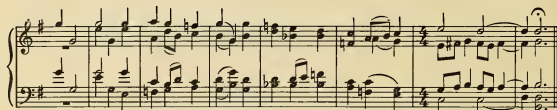
D Aeolian _____

Jacobi, *Synagogue Service for Sabbath Eve*,
 "Tov L'hodos."



G Mixolydian

Major



Mixolydian

Dorian

Mixolydian

Major

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Ireland, *Piano Concerto in E^b. Finale.*



E^b Mixolydian



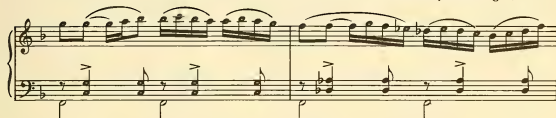
Dorian

Major V

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Cui, *Angelo*, Act III.

A Aeolian (?) ——— Phrygian ——— Aeolian ———

Borodin, *Prince Igor*, Act II.

F Major

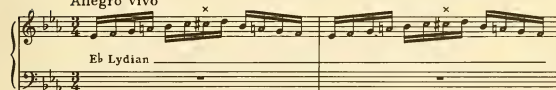
Aeolian



Phrygian

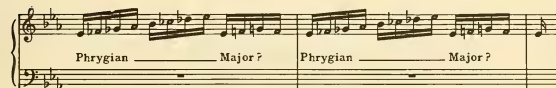
{ Minor (?)
Aeolian (?)

Allegro vivo

Fauré, *2nd Quintet*, for strings, Op. 115, II.

Eb Lydian

x = Passing tone



Phrygian ——— Major ?

Phrygian ——— Major ?

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In view of the evidence presented, which consisted of examples from the works of recognized composers, the feasibility of the practice of interchanging modes above a tonic can hardly be doubted. The inference is that composers, guided by their inherent musical feelings, once again blazed a path of progress which only later was recognized in theory. The principle on which the practice of mode substitution seems to rest may be formulated as follows: the eight diatonic modes¹⁵ are interchangeable above a single tonic without destroying its function as center of gravity.

¹⁵ The Harmonic Modes, see Book Two.

Chapter V

EXTENDED HARMONIC RESOURCES

APPPLICATION of the principle of *interchangeability of mode* not only gives the possibility of wide melodic horizons within a given tonality but also of increased harmonic resources within the frame of that tonality, since chords may be erected on each tone of the scale. Many chords will, of course, be found to be common to more than one scale; for example the triad *c-e-g* is the tonic harmony of C-Major (or Ionian), C-Lydian, and C-Mixolydian. It is only when a chord includes such characteristic notes as the Dorian sixth degree, the Mixolydian seventh degree, and so on, that it becomes differentiated from the usual major-minor inventory.

Here is a complete list of the chords possible in the diatonic system including some which are extra-major-minor. Through the broader concept of tonality, the latter may be recognized as having a demonstrable direct relationship to the tonic. Such chords are marked with a cross (+). Chords peculiar to but one mode are indicated by two crosses (++). Chords having no marks are found in the Major or Minor mode.

Lydian

Tonic Scale

Chords

Lydian I II III IV V VI VII

Lydian I⁷ II⁷ III⁷ IV⁷ V⁷ VI⁷ VII⁷

Chords in the Lydian mode are shown on a staff with a key signature of one sharp (F#). The tonic is C. The scale is C-D-E-F#-G-A-B. The chords are: I (C major), II (D minor), III (E minor), IV (F# major), V (G major), VI (A major), VII (B major). The 7th chords are: I⁷ (C major 7), II⁷ (D minor 7), III⁷ (E minor 7), IV⁷ (F# major 7), V⁷ (G major 7), VI⁷ (A major 7), VII⁷ (B major 7). Chords I, II, III, IV, V, and VI are marked with a cross (+), indicating they are also found in other modes. Chord VII is marked with two crosses (++), indicating it is peculiar to the Lydian mode.

Mixolydian

Tonic Scale

Chords

Mixolydian I II III IV V VI VII

Mixolydian I⁷ II⁷ III⁷ IV⁷ V⁷ VI⁷ VII⁷

Chords in the Mixolydian mode are shown on a staff with a key signature of one flat (Bb). The tonic is C. The scale is C-D-E-F-G-A-Bb. The chords are: I (C major), II (D minor), III (E minor), IV (F major), V (G major), VI (Ab major), VII (Bb major). The 7th chords are: I⁷ (C major 7), II⁷ (D minor 7), III⁷ (E minor 7), IV⁷ (F major 7), V⁷ (G major 7), VI⁷ (Ab major 7), VII⁷ (Bb major 7). Chords I, II, III, IV, V, and VI are marked with a cross (+), indicating they are also found in other modes. Chord VII is marked with two crosses (++), indicating it is peculiar to the Mixolydian mode.

Dorian

Tonic Scale

Chords

Dorian I II* III IV* V VI VII

Dorian I⁷ II⁷* III⁷ IV⁷ V⁷ VI⁷ VII⁷

Chords in the Dorian mode are shown on a staff with a key signature of two flats (Bb, Eb). The tonic is C. The scale is C-D-E-F-G-A-Bb. The chords are: I (C major), II* (D minor), III (E minor), IV* (F major), V (G major), VI (Ab major), VII (Bb major). The 7th chords are: I⁷ (C major 7), II⁷* (D minor 7), III⁷ (E minor 7), IV⁷ (F major 7), V⁷ (G major 7), VI⁷ (Ab major 7), VII⁷ (Bb major 7). Chords I, II*, III, IV*, V, VI, and VII are marked with a cross (+), indicating they are also found in other modes. Chords I⁷ and II⁷* are marked with two crosses (++), indicating they are peculiar to the Dorian mode.

* These chords also occur in the Major and Mixolydian modes but when used in conjunction with a minor tonic triad possess striking individuality.

Aeolian

Tonic Scale

Chords

Aeolian I II III IV V VI VII

Aeolian I⁷ II⁷ III⁷ IV⁷ V⁷ VI⁷ VII⁷

Phrygian

Tonic Scale

Chords

Phrygian I II III IV V VI VII

Phrygian I⁷ II⁷ III⁷ IV⁷ V⁷ VI⁷ VII⁷

Locrian

Tonic Scale

Chords

Locrian I II III IV V VI VII

Locrian I⁷ II⁷ III⁷ IV⁷ V⁷ VI⁷ VII⁷

For more convenient reference the extra-major-minor chords may be classified as in the following table. Besides the mode names, the usual parenthesis-chord designations have been given in brackets where such terms exist.

*Extra-Major-Minor Chords**

I

Locrian I
[v⁷ of N⁶]

Locrian I⁷

Dorian Aeolian Phrygian { I⁷

Mixolydian I⁷
[v⁷ of IV]

* For the sake of simplicity all chords are shown in relation to tonic C.

II

Lydian II
[V of V]

Phrygian } II
Locrian }
[N⁶ (when inverted)]

Lydian II⁷
[V⁷ of V]

Phrygian } II⁷
Locrian }

III

Mixolydian III
[V^{c7} of IV²]

Dorian Aeolian } III
Phrygian }

Locrian III

Mixolydian III⁷
[V^{c7} of IV²]

Dorian Aeolian } III⁷

Phrygian III⁷
[V⁷ of VI]

Locrian III⁷

IV

Lydian IV
[V^{c7} of V]

Dorian IV *

Lydian IV⁷
[V^{c7} of V]

Dorian IV⁷
[V⁷ of IV of IV²]

* When used in juxtaposition with a minor I.

V

Mixolydian } V
Dorian }
Aeolian }

Phrygian V
[Phrygian III^{c7}]
[V^{c7} of VI]

Locrian V

Lydian V⁷

Mixolydian } V⁷
Dorian }
Aeolian }

Phrygian V⁷
[Phrygian III^{c7}]
[V^{c7} of VI]

Locrian V⁷

VI

Dorian VI
[v°7 of IV of IV?]

Dorian VI⁷
[v°7 of IV of IV?]

Locrian VI⁷
[v⁷ of N⁶]

VII

Lydian VII

Mixolydian
Dorian
Aeolian } VII

Phrygian
Locrian } VII

Lydian VII⁷

Mixolydian
Dorian } VII⁷

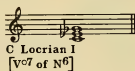
Aeolian
VII⁷
[v⁷ of III]

Phrygian
Locrian } VII⁷

The next chapters will illustrate these extra-major-minor chords by examples selected from actual compositions. Care has been taken to choose excerpts containing the chord under discussion in the clearest form possible but it must be realized that many excerpts will inevitably include other chords. This does not invalidate the illustration, even though it may compromise ready intelligibility.

Chapter VI

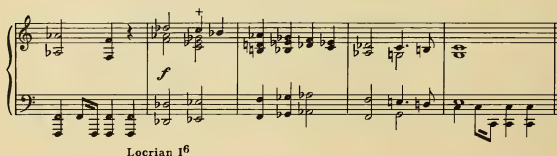
EXTRA-MAJOR-MINOR CHORDS: TONIC FORMS



IT is unfortunate that the first chord to be illustrated is also the one about which there is likely to be the most controversy, but in any logical order the tonic chords should be first.

The idea of a tonic triad with a diminished fifth is somewhat difficult for most musicians to accept. There is good reason for rejecting such a chord as a final because of the lack of repose inherent in this interval. As a final then, only some exceptional intention of the composer could justify its employment. As a passing chord in a progression, however, its use can be sanctioned since, in that case, repose is hardly requisite.

Berlioz, *Les Troyens*, "March and Hymn."



The final cadence of the first movement of Janáček's *Taras Bulba Rhapsodie* contains an example of the Locrian I followed by the Major I. Note the Major second degree (f[♯]) of the scale figure above the Locrian tonic (E), which violates the mode but, since it is a non-harmonic, has no bearing on the analysis of the accompanying chord.

Janáček, *Taras Bulba Rhapsodie*,
End of First Movement.



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Allegro

G Locrian I I

Phrygian Locrian Phrygian Locrian

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By adopting an experimental attitude, the Locrian I may be employed as the final chord of a musical work. Haba² gives the following cadence formula for the mode "Hypophrygisch H" (*sic*) which, despite his nomenclature, is really Locrian. The diminished chord is frankly the final in this case.

B Locrian I I I

Another experimental Locrian close is given here. In spite of the fact that the last four measures are indisputably Locrian, the inconclusive nature of the diminished fifth is almost evaded by the special treatment.

Vincent, *String Quartet*, II.

G Locrian I VII⁶ VI III VII⁴ VI⁷ VII VI

pizz. arco pizz. pizz.

V VI IV I

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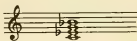
² Alois Haba, *Neue Harmonielehre des diatonischen, chromatischen, Viertel-, Drittel-, Sechstel-, und Zwölftel-Tonstems*: (Leipzig, Fr. Kistner and C. F. W. Siegel, 1927), p. 60.

C-Locrian I⁷C Locrian I⁷

The Locrian I⁷ is naturally somewhat more rare than the simple triad. It is possible to construe the chord as $V^{\circ} \frac{9}{4}$ of N^6 but curiously enough no examples have been found which illustrate such usage. Although complicated by unresolved appoggiaturas, the first chord of the following excerpt seems essentially G-I⁺ followed by G-Locrian I⁷.

Ravel, *Trio*, I.

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C Dorian³
C Aeolian I⁷
C Phrygian I⁷

Since this chord is common to three modes, other factors must be present in order to differentiate. Distinctions are made possible by the appearance of a scale or by other chords. The following examples are Dorian I⁷ because the third is minor and the sixth is major, these being the characteristics of the Dorian mode.

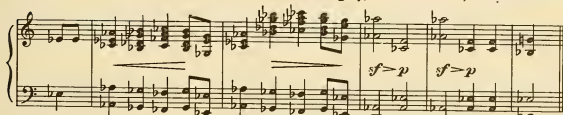
Fauré, Op. 42, No. 2.



Eb Major I

Dorian I⁷

Major I

Moussorgsky, *Boris Godounov*, IV. Introduction

Ab Aeolian

I VII VI V

I VII VI V

I I⁺6I I⁺6

Minor V

* The simple forms of the tonic chord in these modes hold no particular interest in connection with the present study since they correspond exactly to the tonic of the Minor mode. The

single exception is the Dorian I⁺ which is occasionally encountered. It owes its existence to the *Dorian sixth* which forms a major sixth with the tonic.

F Dorian

I^7

I^7

Minor $V^{\circ}I^{\flat}I$

Andantino con moto

Ireland, *The Land of Lost Content*, I.

'Tis

E Dorian

I^7

col ped

Spring; come out to ram - ble The hill-y brakes a - round

Dorian I^7

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Worth noting perhaps are instances of the employment of the Dorian I^7

Ireland, *The Bells of San Marie*.

On San Ma-rie La - goon - In port of Ho - ly

A V^7

I II^7 Dorian III IV II V II I^7

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Ma - ry On San Ma-rie La - goon. _____

IV Mixolydian I_6^6 V^7 I (minor)

Debussy, *Six Epigraphs Antiques, I.*

G Dorian I^9 (IV 13^7) I^9

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Since the minor third and minor sixth are to be found in connection with the following chords, they are identified as Aeolian I^7 . The first two come about by scalewise motion descending from a simple I.

Malipiero, *Il finto Arlecchino, Part I.*

D Aeolian I^7 IV III — VI III 7 — II 7 Minor V^7 I

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Elgar, *Dream of Gerontius.*

A Aeolian IV I I^7 II 7 IV 7 VII 7 I

I Pedal

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A Aeolian I⁷ IV 6 V 1⁶

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"Glazounov, *Der König der Juden*," 2.

Gesang der Jünger Jesu.

F Aeolian I VI I⁷ VI I

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Moussorgsky, *Boris Godounov*, IV, Scene 1.

E^b Aeolian I IV I IV I⁷ IV I VII I

Be the guard-ian and champ-ion of our ho-ly faith,

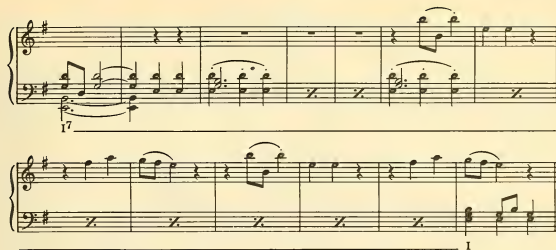
Hon-or the Saints, our great pro-tect-ors and pa-trons.

I IV I IV I⁷ IV I VII I

Molto vivace

Dvorák, *Symphony No. 5*, III.

E Aeolian I



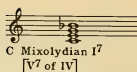
The two examples of I^7 given are identified with the Phrygian mode only by the Phrygian signature supplied by the composers: the characteristic minor second degree of the scale appears in neither. Both excerpts are final cadences.

Emmanuel, In Memoriam, II.



Rangström, Es wollt' das Mädchen früh aufstehn
(final cadence).





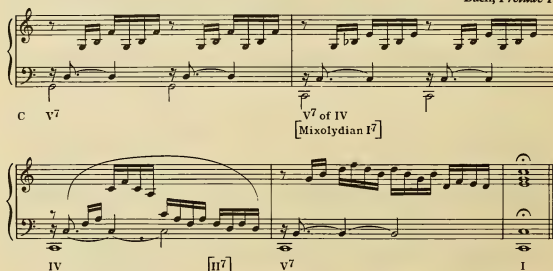
The most frequent employment of this harmony is as the parenthesis chord V⁷ of IV. Although examples are to be found in the works of almost every composer, Franck, Brahms, and Fauré exhibit an especial predilection for it.

Brahms, *Trio for Cl., Cello, and Piano*, Op. 114, IV.

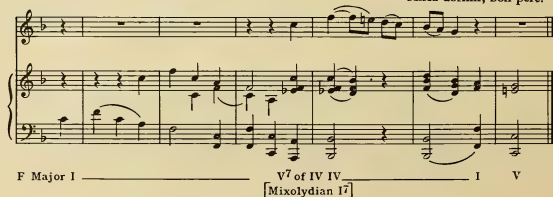


The classical employment of the V⁷ of IV (Mixolydian I⁷) is in the final cadence where, as is usually stated, it suggests the subdominant key and imparts either a calming influence or a feeling of lowering harmonic weight.

Bach, *Prélude I*.



Berlioz, *L'Enfance du Christ*,
"Allez dormir, bon père."



Fauré, *Pélleas et Mélisande*, Prélude

G Major I V — 7 V⁷ of IV IV I
[Mixolydian I⁷]

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Brahms, Op. 33, No. 15.

Eb Major I 6 V 6 I V⁷ of IV IV II 1⁶ V
[Mixolydian I⁷]

It is also held that a cadence involving some such progression as the following is perfectly definitive of the tonic, since it suggests the keys a fifth above and a fifth below.

C I V⁷ of V V VI V⁷ of IV IV V⁷ I

Suggested tonics and signatures:
C G C F C

No one would hold that these are real modulations since they are not "fixed," yet the upper and lower dominants are truly implied: hence the term *parenthesis modulation*.

Without denying this method of explaining the definitive powers of a progression which includes parenthesis modulations to the dominant and subdominant, some notice should be taken of another viewpoint. The tonality of the whole cadence is C despite the f^\sharp and b^\flat accidentals. C-tonality with f^\sharp is C-Lydian, and C-tonality with b^\flat is C-Mixolydian. Thus the Major mode is defined by momentary excursions into the two contiguous⁴ modes:

C-Major: C-Lydian: C-Major: C-Mixolydian: C-Major.

Although in traditional cadential practice the Mixolydian I⁷ is the true V⁷ of IV, (i.e., when it resolves to IV), this is not its sole use: the chord may resolve to several other harmonies. In the latter case the relevancy of the name V⁷ of IV becomes questionable. In the two following examples if the Mixolydian I⁷ chords (marked with an asterisk) be construed as V⁷ of IV, the chords which follow (II and VI) would have pivotal significance as VI of IV and III of IV respectively—an analysis which, if not actually untenable, is not unassailable.

⁴Contiguous modes are those which differ by but one accidental. See the *Lateral Index* above, p.19.

Brahms, *Variationen und Fuge über ein Thema von Händel*, Op. 24.

Bb VI V7 Mixolydian II(3) I⁷ Mixolydian IV I⁷ [V⁷ of IV] VI of IV [V⁷ of IV]

Saint-Saëns, *Le Feu Celeste*.

F I I+6 I Mixolydian I⁷ [V⁷ of IV] I I⁷ VI I [V⁷ of IV III of IV]

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From this evidence the conclusion may be drawn that V^7 of IV is a legitimate specific term implying a stereotyped classical harmonic progression, whereas *Mixolydian* I⁷ is a name for the same chord which carries with it no implicit *enchainements*.

The Mixolydian I⁷ is sometimes used in the midst of an otherwise major passage:

Saint-Saëns, *Coeli Enarrant*, Op. 42, Introduction.

C Major I Mixolydian Major I⁷ I

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but perhaps it most frequently occurs in the elaboration of the final cadence. Unless the mode of the following final cadences is regarded as Mixolydian it would seem that the tonality is threatened by the cancelled leading tone.

Brahms, *Sonata*, Op. 1, Andante.

[illegible]

Brahms, *Ein Sonnett*, Op. 14, No. 4.

A♭

Mixolydian

I7 IV

1⁶ Major V⁷ Mixolydian
1⁷ [1^V] 1

Dubois, *Thème Provençal Varié.*

C Minor V⁷ Mixolydian I⁷ Aeolian I I

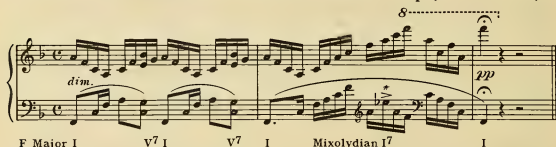
Saint-Saëns, *Rhapsodie II*, Op. 7.

D Major

Mixolydian I⁷ [IV II] I

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The final tonic chord of Chopin's *Prelude in F Major* is elaborated by the introduction of an e^b . In an attempt to justify this bit of harmonic daring it has been pointed out that the e^b is the seventh partial of the tonic. This is true if the disparity of tuning between the minor seventh degree and the sixth overtone is disregarded, yet the chord formed is nevertheless Mixolydian I⁷.

Chopin, *Prélude in F Major*.

F Major I

V⁷ IV⁷

I

Mixolydian I⁷

I

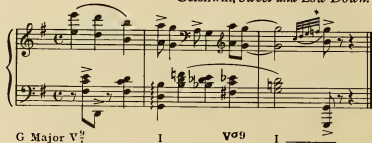
This instance of the use of the Mixolydian I⁷ as a final is all the more remarkable when we realize that not until almost a century later are similar examples found. Apparently there is nothing resembling it until the early 1920's when there was a fad in jazz circles for an ending, more or less elaborate, the essential formula of which may be given as follows:



C

Mixolydian I⁷

Such a motto soon became too trite and was discarded, but in more subtle form the Mixolydian I⁷ persists both in popular dance music and in more orthodox composition.

Gershwin, *Sweet and Low Down*.G Major V⁷

I

V⁷

I

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Piano *fff* *molto rit.*

Organ *fff*

Bb Mixolydian 1⁷ I

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Gershwin, *Fascinating Rhythm*.

Eb Major V⁷ Mixolydian I

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Stravinsky, *Duo Concertante*, "Dithyrambe."

C Mixolydian 1⁷

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As if for the explicit purpose of demonstrating once again that there is nothing new under the sun, the final cadence of a Purcell anthem anticipates the spirit of this jazz formula to such a degree that it might easily be taken for an inspired bit by a Tin Pan Alley composer about 1925.

Purcell, *Praise the Lord, O Jerusalem*.

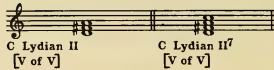
Soprano Al - le - lu - ia.

Alto Al - le - lu - ia, al - le - lu - ia, al - le - lu - ia.

B ss Al - le - lu - ia.

Chapter VII

EXTRA-MAJOR-MINOR CHORDS: SUPERTONIC FORMS



THE CLASSICAL use of the Lydian II ⁽⁷⁾ is as V ⁽⁷⁾ of V and examples are so common that illustrations are almost superfluous.

The following illustrations, taken from Mozart, Beethoven, and Brahms, should be sufficient.

Mozart, *Sonata* (K. 310), Finale.



Beethoven, *Sonata*, Op. 109, Third movement.



Brahms, *Ein Deutsches Requiem*, Op. 45,
Second movement.

Occasionally there are cases where the $V^{(7)}$ of V is followed by a modal dominant instead of the usual $V^{(7)}$ form. Two such examples follow.

Malipiero, *La Principessa Ulalia.*

A Dorian: I V⁶ — V of V V (Dorian) I
 [Lydian II]

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Dvorák, *Legenden*, Op. 59, No. 3.

Allegro

G Minor I II I II I

I Pedal

Dorian V⁶₄ Lydian II⁷₇ [V⁷ of V] Aeolian V [Major V_{3b}] I

The chord in question is not always used as illustrated above, however, since it often progresses to I. In this case the general term *Lydian II* ⁽⁷⁾ is more applicable because *V* ⁽⁷⁾ of *V* loses its *raison d'être* if it does not resolve to the dominant chord. The following excerpts illustrate the foregoing statements. The last two are taken from passages which are entirely Lydian; the others are major-minor, except for the introduction of the Lydian II ⁽⁷⁾ chord.

Brahms, *Symphony No. 4*, Fourth movement.

E Minor IV II I VI Lydian II [V⁷ of V] Minor I V⁷_{5>} I

Svendsen, *Norwegian Rhapsody*, Op. 22, No. 4.

D Major V⁷ I Lydian II I II
I Pedal

I II I II I A V⁷ I
D (Lydian II⁷) V

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Liszt, *La Légende de Sainte Elisabeth*, No. 5.

G Major I IV Lydian II⁷ [V⁷ of V]

8.....
2^{pp} 6 6 6
I II [V of V] I

Ravel, *String Quartet*, First movement.

F Major I pizz. Lydian II⁹ I

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Janáček, *Concertino for Clavier*.

A Lydian II Minor I

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Gretchaninov, *Liturgia Domestica*, Op. 79.

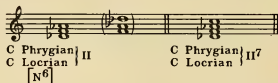
C Lydian I II I II I

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Moussorgsky, *Boris Godounov*, Act III, Scene II.

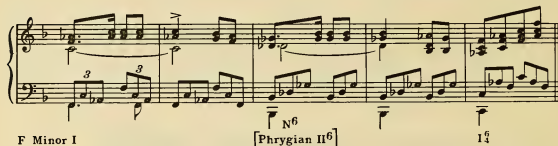
C Lydian I (II) I II I II I

It is a remarkable fact that considerable personal research has failed to reveal other established uses for the Lydian II⁽⁷⁾. As has been shown, it may be invested with the function of a secondary dominant (V⁽⁷⁾ of V), whether this dominant be major-minor or modal, and it may move directly to I (major, minor, or modal). But no other progressions appear to be employed frequently enough to permit generalization.



In traditional harmonic practice the Phrygian or Locrian II is used only in the first inversion, is called the *Neapolitan Sixth* chord, and precedes the I^o or the V⁽⁷⁾ in the cadence.

Dvorák, *Rusalka*, Op. 114.



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Mozart, *Die Zauberflöte*, Aria No. XVII.

Andante



Chopin, *Prélude*, No. 6.



Various writers have pointed out that the chord under discussion sometimes occurs in root position (in which case it is called *Neapolitan chord*) and in the second inversion (called the N^6). The name *Neapolitan* in this connection means very little yet serves its purpose well enough until the need arises for discriminating between two possible derivations, for, as has been shown,¹ the chord may belong either to the Phrygian mode or to the Locrian. There is also the academic question whether any but the first inversion form progressing to I^6 or V should be designated by the name *Neapolitan*. Whatever the answer, the chord is frequently found in all positions (sometimes with a seventh) and often resolves to chords other than the traditional I^6 and V.

The following examples illustrate the Phrygian II (Neapolitan chord) moving to IV.

Fibich, *Smrt' Hippodamie*, Op. 33, Act IV, Prélude.

C Minor V Pedal IV Phrygian II IV Minor V7

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Gretchaninov, *Liturgia Domestica*, Op. 79.

C Major I Dorian III IV Phrygian II I Pedal Dorian IV I6 Minor V7 I

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Phrygian II with or without a seventh may progress to Phrygian VII. In the second example below, the Phrygian VII⁷ becomes Phrygian V⁶ (or perhaps Phrygian VII⁺⁶) when the e^b moves to d .

Brahms, *Schicksalslied*, Op. 54.

C Phrygian I II VII I

¹ See above, Book One, chap. v.

Fauré, *Messe Basse Sanctus*, Final cadence.

Ho - san - na, ho - san - na in ex - cel sis

Ho - san - na, in ex - cel - sis

G Phrygian I II⁶ $\frac{4}{2}$ VII⁷ Aeolian Mixolydian Aeolian Major
I⁶ II⁷ I

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The succession Phrygian II to I has been used repeatedly as a final cadence. Frequently the progression takes place over a tonic pedal but this is not invariable as will be seen in the Glazounov and Pizzetti excerpts.

Chopin, *Étude*, Op. 25, No. 4. Final cadence.

Lento

A Phrygian II I Pedal

Rangström, "Ein Kuss von rothem Munde."

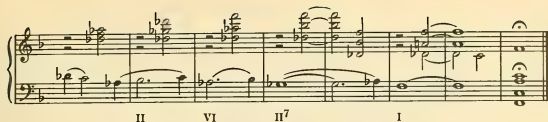
C# Phrygian II I Pedal

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Glazounov, *Quartet*, Op. 10, First movement.

F I Phrygian II I

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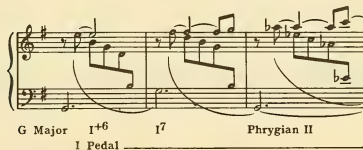


Pizzetti, *La Pisanella*, Prologue.

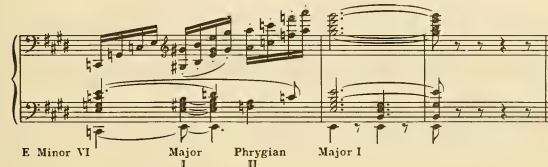


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D'Indy, *Lied Maritime*.



Brahms, *Symphony No. 4*, Second movement.



Particularly striking is the cadence Phrygian II-I in Act II of *Boris Godounov*, while the other example serves to illustrate what diversity of expression may be obtained from the same chord succession.

Moussorgsky, *Boris Godounov*, Act II.

Ab I Phrygian II $\frac{6}{4}$ I

I Pedal

De Sévérac, *Heliogabale*, Act. III.

Bb Phrygian I II I II I

I Pedal

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Gretchaninov uses Phrygian II⁷ as the penultimate chord in a resounding final cadence in his *Third Symphony*. The figure given to the trumpet and trombone preclude any tendency to hear the chord as IV⁺⁶

Gretchaninov, *Symphony No. 3*, Second movement.

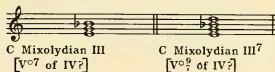
C# Phrygian II⁷

I II⁷ I

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Chapter VIII

EXTRA-MAJOR-MINOR CHORDS: MEDIANT FORMS

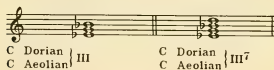


THE MIXOLYDIAN III⁽⁷⁾ can scarcely be said to exist as an independent chord. Two factors contribute to this circumstance: (1) being built on the third degree of the scale, the chord is not sufficiently functional to counteract (2) the instability inherent in a triad with a diminished fifth. On the other hand, the Locrian I⁽⁷⁾ and the Phrygian V⁽⁷⁾, both of which have diminished fifths, are set up as harmonic entities through the firmly established functions of their roots. The mediant degree, having no such special harmonic role, does not secure the individuality of a diminished triad erected upon it.¹ Instead, the chord (Mixolydian III) is heard as an incomplete Mixolydian tonic seventh (I^{°7}) or V^{°7} of IV chord² and the progression patterns of the Mixolydian I^{°7} apply to the Mixolydian III as well. (For these, see above, chap. vi.) The Mixolydian III⁷ (Mixolydian I^{°9}), although rare, is sometimes found.

Suk, *Ein Märchen*, Op. 16, III. Trauermusik.



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The Dorian and Aeolian III⁽⁷⁾ can be employed as IV⁽⁷⁾ of IV of IV although this analysis pushes the idea of parenthesis chords almost beyond the point of credulity.



¹ This does not apply to the forms of the mediant triad having a perfect fifth.

² A physical basis may be claimed for this phenomenon. The three notes of the Mixolydian III have difference tones (*Tartini tones*) which supply the missing root of the Mixolydian I^{°7}:

Jacobi, *Synagogue Service for Sabbath Eve*,
"Sch'ma Yisrod."

ff

F Major IV — I — 6 Dorian VII Major IV V_4^6 I V I

[IV of IV of IV of IV]

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The alternative names (Dorian III-VII-IV) offer the advantage of relating each chord directly to the tonic—an advantage not shared by the parenthesis-chord nomenclature wherein the emphasis is on revealing the logic of the harmonic progressions. In the above example the chain of subdominants is unbroken and there is a certain sequence-like inevitability in the progression of the harmony which gives point to the figuration *IV of IV of IV* to *IV of IV* to *IV*. The pertinency of *IV of IV of IV* and *IV of IV* would become extremely questionable, however, if the sequence were not carried through to the final IV, since the logic of the whole series is predicated by this as an end result. The following examples illustrate such a truncated effect.

Liszt, *Christus*, "Die heiligen drei Könige."

C { Aeolian I VII⁶ III VII⁶ I⁶ II⁶ V⁷ I

Minor I IV of IV? IV of IV of IV of IV? IV?

Brahms, *The Death of Tenebris*.

Voices
Horns

C { Aeolian I III VII I⁴ Minor I

Minor I IV of IV of IV? IV of IV? I⁴ V

The only way in which the progression might legitimately be termed *IV of IV of IV* to *IV of IV* to *I* is by regarding the phrase as an elliptic sequence in which the final IV is omitted, but such an idea is more fanciful than real.

Besides progressing to a chord with the subtonic (lowered leading tone) as a root (Mixolydian, Dorian, Aeolian, or Phrygian VII), the Dorian and Aeolian III⁽⁷⁾ may be followed by several other chords among which both the major and modal V⁽⁷⁾ are important.

Suk, *Symphony in E Major*, II, Op. 14.

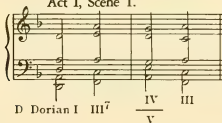
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Dvorák, *Quartet in A^b*, First movement,
Final cadence.

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Fauré, *Requiem*, Offertoire.

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Debussy, *Pélleas et Mélisande*,
Act I, Scene 1.

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Moussorgsky, *Lied des Mephistopheles*
in Auerbachs Keller.

Brahms, *Klavierstücke*, Op. 119, No. 4. Rhapsody.

ff

E \flat Aeolian I VI III IV I

Moussorgsky, *Silently Floated a Spirit*.

E \flat Major I Aeolian VI III Major IV I

Although the Aeolian III⁽⁷⁾ often progresses to the submediant, the root of the latter is always the Aeolian (minor) sixth degree, never the sixth of the major as would be true in the Dorian mode. The progression III to VI does not appear to have been used in Dorian. The explanation lies in the fact that the Dorian VI is a diminished triad, and the roots of the two chords from the melodic interval of a diminished fifth.

Always this:

Never this:

C Aeolian VI
IIIC Dorian VI
IIIBrahms, *Wie die Wolke nach der Sonne*,
Op. 6, No. 5.

B Aeolian I Aeolian III VI

Brahms, *Variations on a Theme by Haydn*, Var. VI.

Bb Aeolian I IV III VI Minor V I

Dvorák, *Quintet in E*, Third movement.

Ab Aeolian I III VI I III VI (VII⁷) III — V⁷
Aeolian I III VI I III VI Minor V I

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Dvorák, *Moravian Duets*, No. 4.

Eb Major V I IV II Aeolian III VI Major V⁷ I
VII I₄

Ravel, *Ma Mère l'Oye*, Pavane.

Brahms, *Sonata*, Op. 1, Andante.

C Minor I V⁶ I V I Aeolian Minor
III I⁴ V⁷ I

By far the most important use of the mediant chord under discussion is in the cadence where it immediately precedes the tonic chord. The progression is not "strong" in the usual harmonic sense, but the loss of strength is offset by a corresponding gain in subtlety. The blandness of the III to I close offers grateful relief from the directness of the classical V-I cadence which in many cases would be too severe or too brusque.

Dvorák, *Symphony No. 5*, Second movement.

C# Aeolian I VI⁶ I VI⁶ V I⁴ VI⁷ VII III I

Sibelius, *Symphony No. 1*, Second movement.

A \flat Minor I⁴ V⁷ I Aeolian III I
V Pedal

Dvorák, *Rusalka*, Act II.

C# Minor I V I Aeolian III I

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Chauvet, *Vingt Morceaux*, No. 15

D Aeolian I IV III I

Ravel, *L'Heure Espagnole*.

G Major I ——— Dorian III I Major I
I Pedal

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Rangström, *Ich arme Nunn'*, Final cadence.

E Aeolian V I. IV⁷ III I

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C Phrygian III C Phrygian III⁷
[v⁷ of VI]

Not only may the Phrygian III progress to the same chords as the Aeolian III namely, I, IV, V, VI, and VII), but also to II, which is major in the Phrygian mode.³

Moussorgsky, *Boris Godounov*, Act IV, scene 1.

Ab Major I Phrygian III VII Major Phrygian IV III II III I IV III II III Major I
II I IV III II III I v⁷

³ Aeolian II is diminished and is therefore somewhat less definite as an independent chord.

Phrygian III^7 finds employment as V^7 of VI but considerable investigation indicates that this is not at all frequent, a fact which seems odd in view of the logic of the relationships involved.

Cui, *Trios Scherzos*,
Op. 86, No. 3

C Aeolian I VI^4 V^7 of VI
(Phrygian VII^7 - III^7)

VI Minor II^7 V^7 I

*For a discussion of this chord, see chap. xii.

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The chord just as frequently resolves to chords other than VI . In the following Fauré example, note the III^7 , as well as the preceding chord, which includes a chromatically lowered tonic. The latter is clearly the result of similar motion in all the parts and, as such, has little significance: its status is that of a passing-chord.

Fauré, *Prison*. Op. 83.

Eb Aeolian I V VI^7 III^9 Phrygian III^7 [II^9] Minor V^7

Brahms, *Symphony No. 4*.
Fourth movement.

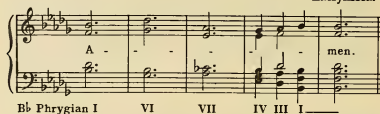
E Mixolydian I^7 [V^7 of IV] Lydian II^7 [V^7 of V] Phrygian III^7 [V^7 of VI]

Dorian IV^7 [V^7 of VII^{\flat} or V^7 of IV of IV] Lydian II^7 [V^7 of V] Minor I V^7

Again, paralleling the practices which pertain to the Aeolian III, the progression Phrygian III — I forms an important cadence. Examples are to be found which make use of the simple Phrygian III, III⁷, or even III⁹

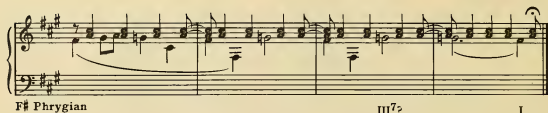
Dvorák, *Requiem Mass*, No. 8.

"Lacrymosa."



Rangström, *Pionerna*,

Final cadence.

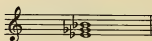


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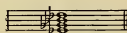
Eichheim, *Across the Silent Stream*.



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C—Locrian III



C—Locrian III⁷

The Locrian III chord does not seem to have found a great deal of favor with composers if we judge by its limited employment. The simple triad figures prominently in at least two final cadences: that of Richard Strauss' opera *Electra*, and the fifth and final movement of Suk's *Asrael Symphony*.

C Major I Locrian Major
 III I

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Suk, *Asrael Symphony*,
Fifth movement, final cadence.

[illegible]

C Major I. _____ Phrygian Major
VII I

Locrian III Major

Locrian III Major I—

The Locrian III^7 is rare and the only examples of it which have been found are transitory, hardly meriting designation as true chords.

Fauré, *Messe Basse*. Benedictus. Final cadence.

A musical score for the song 'The Rose Tree'. The score is written for a single melodic line on a five-line staff. The key signature is one flat (B-flat), and the time signature is 4/4. The melody consists of a series of eighth and quarter notes, with some measures containing beamed eighth notes. The lyrics 'The Rose Tree' are written below the staff, aligned with the notes. The score is presented in a clean, black-and-white format.

Ab Major VI₂⁴ v⁷ VI(IV)⁶ Mixolydian II₃⁴ I₂⁴ v⁷

VI IV Locrian Minor Major V IV III V⁷ I

VI⁷ (III⁷) V^{c95bb} III

[abb: g]

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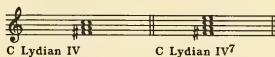
In spite of the dearth of evidence in actual composition, it does not seem impossible to use the chord. The following series of chords, despite a somewhat bizarre quality, is not inconceivable as a cadence.

The musical score consists of two systems of piano accompaniment in F major (two flats). The first system contains three measures. The first measure is labeled "F Phrygian" and features a descending eighth-note pattern in the bass. The second measure is labeled "V" with a 2/4 time signature and contains a triad. The third measure is labeled "VI⁷" and contains a triad. The second system contains three measures. The first measure is labeled "(III⁷)" and contains a triad. The second measure is labeled "Locrian III⁷" and contains a triad. The third measure is labeled "Major I" and contains a triad. The final measure of the second system is labeled "V₂⁴".

Chapter IX

EXTRA-MAJOR-MINOR CHORDS: SUBDOMINANT FORMS

AS WITH the other chords having a diminished fifth, there is doubt that the Lydian IV⁽⁷⁾ should be considered an independent chord. Like the Mixolydian III, it seems to be but an incomplete form of the chord having its root a third below¹.



Thus Lydian IV is really Lydian II^{o7} and Lydian IV⁷ is Lydian II^{o9}

The progression patterns of the Lydian II⁽⁷⁾ therefore apply to the Lydian II^{o7} and II^{o9}. Among the examples of the complete form of the chord given in Chapter VII, however, there are none which move to III and this fact makes the following excerpts noteworthy.

Smetana, *Blanék*, No. 6, Mein Vaterland.

A musical score for Smetana's *Blanék*, No. 6, Mein Vaterland. The score shows a progression of chords: D Major I, Lydian III II^{o7} [IV], Major VI, Lydian II [V of V], Major v⁷, and I.

Elgar, *Dream of Gerontius*.

A musical score for Elgar's *Dream of Gerontius*. The score shows a progression of chords: Bb Major I and Lydian II^{o9} [IV⁷]. The lyrics "Pro - fi - cis - ce - re, an - i - ma Chris - ti -" are written above the notes.

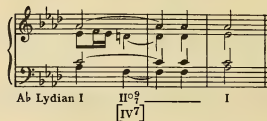
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A musical score for a piece with the lyrics "a - na de hoc mun - do". The score shows a progression of chords: III, V, Mixolydian VII, III⁷, II, IV, Aeolian VI, II⁷, Major V, and I.

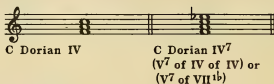
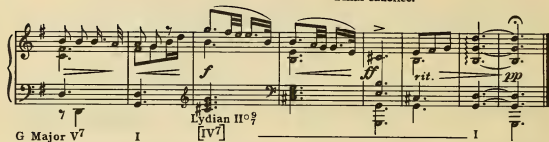
¹The reasons for the subordination of the two chords are similar, except that the function of the mediant chord is weak whereas the subdominant is strong. See chap. viii.

Because Lydian $\text{II}^{\circ\flat}_7$ is more rare than the simpler forms of the chord, the cadences given below are unusual. As was shown in Chapter VII (however, the formula Lydian $\text{II}-\text{I}$ is by no means unique).

Gretchaninov, *Sun and Moon*, Op. 12, No. 2.



Dvorák, *Biblische Lieder*, Op. 99, No. 1.
Final cadence.



The Dorian IV is a major chord and exactly corresponds to the subdominant in the Major mode. Only when used in conjunction with a minor tonic is there anything remarkable about the chord or its employment. The same observation applies to Dorian II, which contains the characteristic note, the major or Dorian sixth degree of the scale with minor third. The Dorian II, however, is not only rare but may, in a sense, be regarded as a form of the Dorian IV, and subject to the same rules of progression.

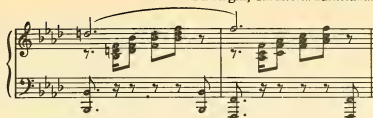
The succession Dorian IV-I forms the forbidden tritone between the thirds of the two chords:



In spite of this, the progression has become very usual. It may be found anywhere in the phrase but it is especially favored as a cadence formula.

Moussorgsky, *The Song of Solomon*.



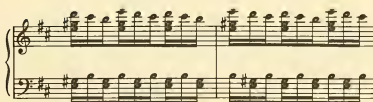


F Dorian IV

I

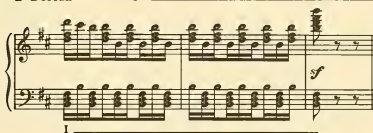
Rimsky-Korsakov, *Scheherazade*, Op. 35, No. II.

Final cadence.



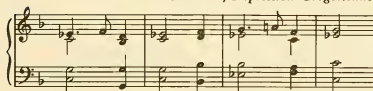
B Dorian

IV



I

Guilmant, *Impression Gregorienne*.



C Dorian I V I VII III IV I

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Sibelius, *Symphony No. 6*, Op. 104,

First movement, final cadence.



D Dorian

IV

I

IV

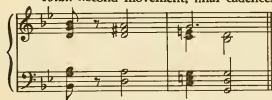
I

I

I Pedal

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Ibid. Second movement, final cadence.



G Minor I⁶

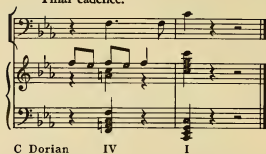
V

Dorian I

IV

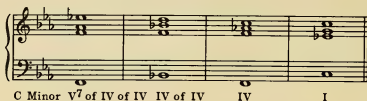
Hindemith, *Tuttifantchen*, No. 2, "Lied."

Final cadence.

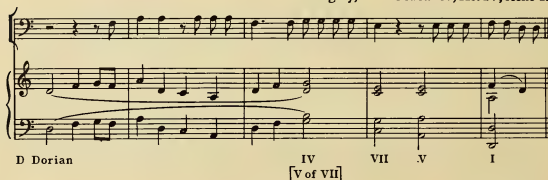


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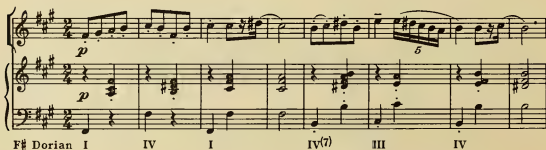
Dorian IV⁷ is a major dominant-seventh type and as such can be used as a secondary V⁷ of IV of IV or V⁷ of VIIth).



From the standpoint of statistics this progression seems relatively unimportant because of its infrequency. In the following example Dorian IV (without seventh) moves to Dorian VII and may be regarded as V of VIIth although it is perhaps drawing an unduly fine distinction, since the whole passage is pure Dorian.

Moussorgsky, *Boris Godounov*, Act IV, scene 1.

Another example which shows Dorian IV⁷ (V⁷ of VIIth) moving to Dorian VII⁷ is given below. Note, however, that Dorian IV and IV⁷ also resolve to I, III, and Major V⁷.

Bartók, *Rumänische Volkstänze*, No. 11.

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In the somewhat complex style which he habitually employs, John Ireland shows a decided predilection for the Dorian mode. The beginning of one of his songs contains several instances of the use of the Dorian IV and IV⁷. Observe that the third of the V⁷ never appears but is represented by the unresolved suspension.

Ireland, *The Bells of San Marie*.

A Dorian I IV $\frac{III}{IV}$ IV⁷ V⁷ I I II⁷ $\frac{III}{IV}$ [V of VII] VII II⁷ V I II⁷

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The preceding chapter quoted a few measures from the last movement of Brahms' *Fourth Symphony* which contained an example of Dorian IV⁷ progressing to Lydian II⁷. This should be regarded as a rather exceptional passage, since it is a series of Major V⁷ forms.

It is as a cadence that the progression Dorian IV⁷—I like Dorian IV—I proves to be the most important. Note that in the first two examples the Dorian IV⁷ resolves to Major I, the third to Mixolydian I, and the others to the usual minor (Dorian) tonic.

Gretchaninov, *Liturgia Domestica*, Op. 79.
Final cadence.

E^b Dorian III IV⁷ Major I

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Grieg, *Sonata for Cello and Piano*, Op. 36.
Third movement, Final cadence.

Cello

Piano

A Major I Dorian IV⁷ Major I

Gretchaninov, *Liturgia Domestica*.

Chorus

Piano

C Aeolian VI Dorian I^{3b} Mixolydian IV⁷

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Moussorgsky, *On the River Dnieper*.

F Dorian I⁴ IV⁷ I⁶ V⁴ I

The Dorian IV_7^9 has been employed with surprising frequency. The uses to which the chord is put are the same as for the Dorian IV or IV^1 , as the examples will attest. The first illustrates the resolution to the Minor V in a cadence.

Eichheim, *Aedh Wishe's His Beloved Were Dead.*

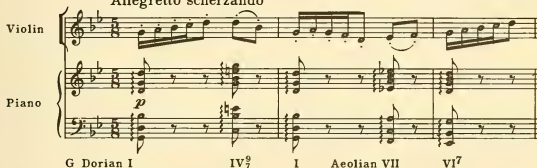


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Of the next two examples it may be said that the one by Grovlez is clear whereas that by Debussy is less so. Both occur in mid-phrase, that is, not at the cadence points.

Allegretto scherzando

Grovlez, *Sonata, II.*



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Debussy, *Pélleas et Mélisande, Act. I, scene 1.*



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The examples of Dorian IV_7^9 -I cadences require no comment, with the possible exception of the one by Ireland quoted below. In this the harmonies of the second and third complete measures seem to be the result of using two chords at the same time, as if the *d* and *a* of the bass were a double pedal. In any case the Dorian IV_7^9 in the last measure is clearly defined and this is the essential point in the illustration.

Ireland, *Mother and Child, No. 3, Hope.*



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Gretchaninov, *Liturgia Domestica*.

A Dorian I IV₇⁹

IV₇⁹ I

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Pizzetti, *I Rastori*.

A Phrygian III₇⁹
[V₇⁹ of VI] Dorian IV₇⁹
[V₇⁹ of VII_b] I

(I)

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EXTRA-MAJOR-MINOR CHORDS: DOMINANT FORMS

IN THE major-minor system the role delegated to the dominant is of the utmost importance. This does not mean that it has more uses than the other chords; the truth is just the reverse, since the functions of no other chord are so circumscribed. Although the dominant has often been said to "rule the harmony" and the truth of this is granted, it must be observed that, like all rulers, it is paradoxically the most restricted: normally it progresses only to the tonic. The movement to the submediant, the usual alternative, has so much the character of an evasion of the expected resolution that a cadence thus formed is called *deceptive*.

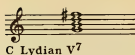
So thoroughly established is this formula that to introduce some form of the V^7 in either the Major or Minor mode is to arouse an expectation of the tonic. There can be no doubt that this convention, more than any other factor, brings about the strong feeling for a tonal center of gravity which is associated with the so-called *classical tonality*. During the two-hundred-and-fifty-year period completely dominated by the major-minor system the word *dominant* had but one connotation: the harmony of the fifth degree of the scale. The fact was entirely forgotten that in the ecclesiastical modal system the dominants of the Phrygian and Locrian scales were placed on the sixth degree and those of the plagal modes on the third, sixth, or even the seventh degree.¹

When, as happened during the past fourscore years, composers sought to escape the monotony of the major-minor scales, there appeared other scales which are the modern counterpart of the old Church modes. Since the rediscovery of the diatonic modes came about empirically instead of through an antiquarian movement, it was but natural to transfer to them the formulae and practices pertaining to the major-minor system. Thus it is that no distinctions were made between the authentic and plagal forms and that the all-important functions of the dominant (V) were carried over intact, although the dominant chord itself suffered whatever mutation was necessary to make it conform to each particular mode. Moreover the dominant is always the fifth degree even in the Phrygian and Locrian modes. It is understood that the dissonances of the seventh and ninth are freely employed, especially in connection with the dominant (V^7 , V^9 , and inversions).

The transfer of major-minor harmonic procedures to the diatonic modes has not invested the latter with the same stability of tonality. In the Mixolydian, Dorian, Aeolian, Phrygian, and Locrian modes, this is due to the loss of the *clausula vera* by the substitution of the *subtonic* for the *leading tone*. In the Lydian mode the seventh of the dominant is major and is, therefore, less positive in its tendency to fall to the third of the tonic in a Lydian V-I progression. This fact, combined with the detrimental effect of the tritone, explains the relative weakness of the tonality of this mode.

The rather disparaging descriptive term *weak tonality* is perhaps an unfortunate choice in this connection: *strong tonality* is an over-valued attribute if the obtaining of it means sacrificing delicate shades of musical expressiveness. In contrast to many of the modal cadences, the Major-minor V^7 -I seems abrupt, rude, or truncate. Far from being limited to one mood, however, the modal dominant cadences exhibit a wide range of expression and ample evidence will be found in the excerpts given below.

¹The Phrygian mode (E-e) had a fifth degree dominant (b) before the tenth century, and then the dominant was altered to the sixth (c), at least in theory.



As mentioned above, the seventh of Lydian V is major and forms the interval of an augmented fourth with the tonic. Despite these disadvantages the chord is not particularly rare and Ravel seems to have a decided predilection for it. The first example (from Ravel's *Piano Concerto*) contains a number of Lydian dominant-seventh chords, but the soprano parts seemingly move without regard to the underlying harmony. This excerpt is an illustration of polyharmony, that is, two (or more) simultaneous streams of harmony.

Ravel, *Concerto for Piano*, Third movement.

C Lydian I $\frac{VI}{V^7}$ I $\frac{VI}{V^7}$ I $\frac{VI}{V^7}$ V⁷ I

$\frac{VI}{V^7}$ I $\frac{I}{V^7}$ I⁷ V⁷ I $\frac{I}{V^7}$ I⁷

V⁷ I $\frac{VI}{V^7}$ I $\frac{VI}{V^7}$ I $\frac{VI}{V^7}$ $\frac{VI}{V^7}$ I

etc.

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Ravel, *Cinq mélodies populaires grecques*, No. IV,
Final cadence.

A Lydian I⁺⁶ V⁷ I +6

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Sullivan, *The Golden Legend*.

E Lydian I II $\frac{4}{2}$ V⁶ V⁷ I

Satie, *Aperçus désagréables*, No. 1, Pastorale.

F Lydian V I

Fauré, *Fantasie*, Op. 111.

G Major I IV V $\frac{2}{2}$ I III Lydian(I-III V⁷) I

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The final cadence of the third movement of Ravel's *Piano Concerto* contains an instance of the use of Lydian V⁹. As is often true in the music of this composer, there are added tones and unresolved appoggiaturas.

Ravel, *Concerto for Piano*, Third movement,
Final cadence.

G Lydian V⁺6 V $\frac{9}{7}$ I⁺6

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C Mixolydian	}	V	C Mixolydian	}	V ⁷
C Dorian			C Dorian		
C Aeolian			C Aeolian		

Although the above types are common to three modes, the particular scale to which any given example belongs is usually defined by other chords or by scale passages. So far as harmonic progression is concerned the distinctions have little meaning except to reveal that the V⁷—I cadence occurs in every mode. The real reason for such differentiation is to aid the reader in comprehending and classifying the variety of musical expression which is possible not only between the several modes but within the strict confines of each. Recognizing the inadequacy of words to do more than give any but the roughest approximation of the musical meaning, no attempt has been made to characterize the effect of the quotations: appraisal must be made on purely musical grounds.

The characteristics of the Mixolydian mode are contained in the two principal chords: the third of the tonic is major and the third of the dominant is minor. The first five of the following examples make use of the simple dominant, the next two illustrate the V⁷, and the last contains an instance of the employment of the V⁷.

De Sévécac, *Héliogabale*, Act. II.

Chorus

C Mixolydian I VII V⁶ V I

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Satie, *2nd Gymnopédie*.

C Mixolydian II⁷ V I

Glazounov, *Suite pour Quatuor d'archets*,
Op. 35. *Orientale*.

C Mixolydian I V I

Cui, *Angelo*, Women's Chorus,
Final cadence.

A \flat Major I Mixolydian I V I V I V I

Brahms, *Die Mainacht*, Op. 43, No. 2.
Final cadence.

F# Mixolydian I Pedal I⁷ V I I⁷ IV IV⁺⁶₃ [Aeolian IV⁺⁶]I

Sowerby, *Money Musk*.

E Mixolydian II⁶ V⁷ I

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De Sévérac, *Héliogabale*, Act. I.

B \flat Mixolydian I V VII IV V⁷ I V⁷ I

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(♩ = 200)

Ireland, *Concerto for Piano*, Finale.

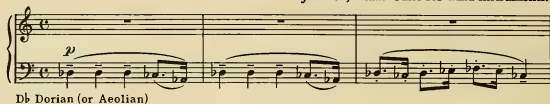
E Mixolydian I⁺⁶ V⁹ I⁺⁶ V⁹

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Since the dominant and tonic triads of the Dorian and Aeolian modes are minor, it is impossible to draw a distinction between the two modes on the basis of these two chords alone. The following example is a case in point.

Janáček, *Mládí*. Suite for wind instruments.



Db Dorian (or Aeolian)



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When, however, the sixth degree of the scale appears as a member of another chord or as a passing tone, it becomes the basis of differentiation: the sixth degree of the Dorian scale is major; the sixth of the Aeolian is minor. This, then, is the method by which the next examples of the V⁷—I progression are declared to be Dorian.

Glinka, *A Life for the Tsar*, Act II.

Antenida

Sobinin

D Dorian I V I V I V I

Moussorgsky, *On the River Dnieper*.

F Aeolian I Dorian I V I VI⁷
 I₄⁶ IV⁷ I⁶ V I

D'Indy, *Quartet*, Op. 35, Third movement.

G Dorian I V I V

The first of the following Dorian V⁷—I cadences is regular enough but in the one by Satie the seventh is resolved in an unorthodox fashion and the final chord is major. In the excerpt from *Il finito Arlecchino*, Malipiero not only resolves the seventh irregularly by having it ascend one degree but he introduces a curious figure in the penultimate measure.

Malipiero, *Armenia*.

II III⁷ IV V⁷ I V⁷ I
 V Pedal

Satie, *1st Gymnopédie*, Final cadence.Malipiero, *Il finto Arlecchino*, Final cadence.

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In the Dorian V^9 the characteristic major sixth degree of the mode forms the interval of a major ninth with the root of the dominant. The tritone appears in the resolution of the Dorian V^9 to I, but this does not deter modern composers from using the cadence.

Ravel, *Valses Nobles et Sentimentales*, No. 2.

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Before proceeding to the dominant progressions of the Aeolian mode it may not be out of place to consider the unusual Minor mode cadence in which the dominant with *major ninth* resolves to the minor tonic triad. This major ninth results from using the Dorian major sixth degree in the minor mode. In other words, the minor with major sixth degree is derived from the Dorian instead of from the Aeolian. Because of the tritone mentioned above, the progression from dominant with major ninth to minor tonic is forbidden in strict harmony but may be found occasionally in free composition.

tritone

D Minor V_7^9 (major)
(Dorian derivative) I

Janáček, *String Quartet*, Third movement,
Final cadence.

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G \flat Minor V_7^9 (major) I

(Dorian derivative)

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Sibelius, *Symphony No. 6*, Second movement.
final cadence

G Minor V V_7^9 (major) I V IV I

(Dorian derivative)

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Sibelius, *En Saga*.

C Minor V_7^9 (major) $\frac{9}{7}$ (major) I $\frac{6}{4}$

(Dorian derivative)

Clar.

$E\flat$ Minor $V_7^{9(\text{major})}$ I $V_7^{9(\text{major})}$ I
 (Dorian derivative)

Examples of the Aeolian dominant cadence are found more frequently than any other kind. The explanation no doubt lies in the fact that the usual Minor mode is derived from the Aeolian, and by simply canceling the leading-tone of the Minor the mode reverts to Aeolian.

In his book *New Harmonic Devices*, Miller quotes an example of a minor or modal dominant from Ravel's *Sonatine*.²

Ravel, *Sonatine*.

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This is an Aeolian V^7-I cadence in F as is proved by the minor sixth (d^\flat) in the first chord. Many such progressions might be cited but a few carefully selected ones will suffice for illustrative purposes.

It might be argued that the first quotation given below is no more Aeolian than Dorian. As the excerpt stands this is true, but throughout the "Credo" Liszt has supplied a flat to every b which occurred.

Liszt, *Graner Messe* "Credo."

D Aeolian V_6^6 I V I

Berlioz, *L'Enfance du Christ*, Epilogue, final cadence.

$A\flat$ Aeolian I_6^6 II_7^7 I V I

²Miller: *New Harmonic Devices*, p. 41.

Liszt, *Christus*, "Die heiligen drei Könige."

C Aeolian I ————— IV I ————— I V^6 I V I

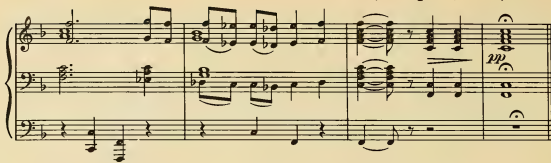
Brahms, *Verrath*, Op. 105, No. 5

B Minor I IV II⁷ V I II I

Aeolian V I III Minor III⁹VI II V I V⁷ I

Brahms, *Symphony No. 4*, II.

E Major I Aeolian [IV] Major I
V

De Sévécac, *Héliogabale*, Act II, Finale.

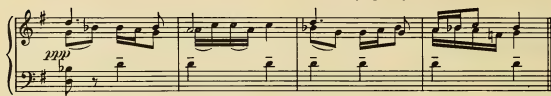
F Major I

Aeolian V⁷

Major I

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In the last two examples note that Aeolian V⁽⁷⁾ progresses to Major I, a *tierce de Picardie* effect. The next excerpts are illustrative of the Aeolian V⁷-I cadence.

Dvorák, *Symphony No. 5*, First movement.G Aeolian I₄V⁷

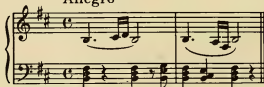
I

V⁷

I

Dvorák, *Concerto for Cello*, First movement.

Allegro



B Aeolian I ——— IV I V I

Malipiero, *Poemetti Lunari*, No. 5.

E Aeolian I

V⁷

I

V⁷

I

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Pizzetti, *La Madre al Figlio Lontano.*

E co-me spie-go

G Aeolian V V $\frac{7}{2}$ I

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Debussy, *Pour le Piano, Prélude.*

A Minor VI $\frac{7}{7}$ V $\frac{7}{7}$ of III (major) [enharmonic] +6b V $\frac{7}{7}$ of III (minor) Phrygian III $\frac{9}{7}$ (V $\frac{9}{7}$ of VI) Aeolian V $\frac{7}{7}$ I

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Ravel, *Ma Mère l'oye, Pavane.*

A Aeolian III $\frac{7}{7}$ VI III $\frac{7}{7}$ VI V $\frac{7}{7}$ Mixolydian Aeolian I

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The Aeolian V $\frac{9}{7}$ does not occur so frequently but it is not unknown. As in the Dorian V $\frac{9}{7}$, the ninth of the Aeolian dominant is the feature by which the mode can be definitely established for it is the minor sixth of the Aeolian scale.

In the two following examples only the cadence of each is analyzed because this is the part which has bearing on the immediate subject: to propose an analysis for the remainder would be to risk a pointless controversy.

Ravel, *Le Tombeau de Couperin, No. III.*
Forlane.

E Aeolian V $\frac{9}{7}$ I

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Ravel, *Ma Mère l'Oye*, Pavane.

A

V Pedal

Aeolian V^9 I

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* * *

C Phrygian V
(Phrygian III^{o7})
[V^{o7} of VI]

C Phrygian V⁷
(Phrygian III^{o7})
[V^{o7} of VI]

The Phrygian V and V⁷ may be employed as incomplete forms of the V of VI (Phrygian III^{o7}.)

Rimsky-Korsakov, *Sur les Collines*
de Georgie, Op. 3.

C# Minor I

V^{o7} of VI
(Phrygian III^{o7})

VI

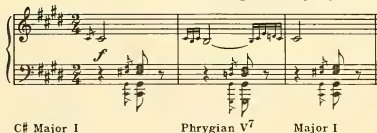
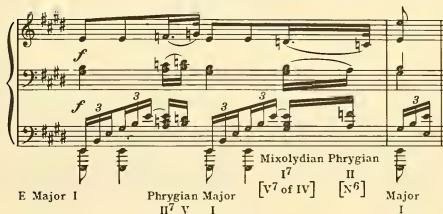
I Pedal

Another way to construe the example above is to consider the second measure as Phrygian V progressing to VI, or in other words, a deceptive cadence. Such a viewpoint has a certain logic because it may be demonstrated that the Phrygian V is a harmonic entity, despite the fact that it has a diminished fifth.

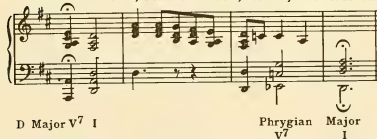
Proof of the last statement lies in the manner in which the chord is used. If the chord in question were but an adjunct of the chord having its root a third below, that is, an incomplete V⁷ of VI, most often it would be found resolving to VI. Such, however, is not the case: the chord most frequently resolves to I (major or minor) and the accompanying excerpts are offered in evidence of this claim.

It is true that most diminished chords are abbreviated forms existing without root. That this does not apply to the Phrygian V must have its explanation in the importance of the functions of the fifth degree on which the chord is erected.

The following are examples of the Phrygian V⁽⁷⁾ progressing directly to the tonic.

Rimsky-Korsakov, *Christmas Eve*, Part IV.Liszt, *Hungarian Rhapsody No. 2*.Brahms, *Symphony No. 4*, Second movement.

I Pedal

Dvorák, *Moravian Duets*, No. 11, Final cadence.Dvorák, *Rusalka*, Op. 114.

(Phrygian) I V_3^4 I Major I V_3^4 I Phrygian Major Phrygian Major V_3^4 I

Rimsky-Korsakov *Sur les Collines de Georgie, Op. 3.*

C# Phrygian V_7^T I Pedal I (Major) Phrygian V_7 Major I

Borodin, *Prince Igor, Act III, Chorus and Dance.*

B Phrygian VII I Pedal v_7 I

Brahms, *Mein Herz ist schwer, Op. 94, No. 3. Final cadence.*

G Major I Phrygian V_7 Major I

D'Indy, *Quartet, Op. 35, Second movement. Final cadence.*

Bb Phrygian V_7 Major I

Ireland, *Preludes*. "The Holy Boy." Final cadence.

F Dorian $V\frac{4}{2}$ $VI\frac{4}{3}$ Phrygian $V\frac{4}{3}$ Major I Major I

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Ravel, *Le Tombeau de Couperin*,
No. III, Forlane.

$G\#$ Major I Phrygian Major I V^7

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Janáček, *Jenufa*, Act. I.

$G\#$ Phrygian V^7 I V^7 I I^7 IV^7 I

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Note the implied Phrygian $V\frac{2}{3}$ in the Janáček excerpt above.

The Phrygian V^7 may progress to some chord other than the I as Fauré demonstrates in his *Second Quintet*. Observe, however, that the Phrygian II^7 is here merely an interpolation between two dominants.

Fauré, 2nd Quintet. First movement.

Eb Major V⁷ Phrygian V⁷ II Major V⁷

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C Locrian V C Locrian V⁷

The Locrian dominant is located a diminished fifth above the tonic. This is the arithmetical division of the octave and stands in sharp contrast to the other dominant chords which are built on the harmonic division. It was due to this "defective" fifth that the mode was rejected as unfit for music. Such a circumstance is apparently accepted as a challenge by the modern composer if we are to judge from the number of cadences to be found containing the Locrian V. The musical effect of a progression involving chords whose roots are a diminished fifth apart is such that there may be those who cannot accept it as legitimate. Such an attitude, however, would have to be maintained against the combined opinion of a representative group of composers who have made use of the Locrian V in their works. Notice that the fifth degree is altered from diminished to perfect when the tonic is reached.

Allegro non troppo

Moussorgsky, Boris Godounov, Act IV, scene 2.

A [12] (Aeolian?) Major I Phrygian II VI Locrian V (Aeolian?) [12]

Dvorák, Symphony No. 5, Finale.

E Minor N⁶ I⁴ V Minor I Locrian V Minor I

Strauss, *Das Rosenband*, Op. 36, No. 1.

A Major I Locrian V Dorian or Aeolian [III] Major V7 I

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Suk, *Ein Märchen*, Op. 16, First movement, final cadence.

E Major I V of II Locrian V Aeolian III Major I etc.

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Thompson, *Pueri Hebraeorum*, Final cadence.

G Locrian VI V [VI IV] Major I

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Cui, *Trios Scherzos*, Op. 82, No. 1.

C Major I Locrian VI VI⁷ Phrygian II

Locrian V Major III C Pedal V⁷ I

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The Locrian V⁷ is a major chord with a majorseventh. Strangely enough, it has found considerable employment in the cadence and elsewhere.

Grieg, *Sonata for Cello and Piano*,
Last movement, final cadence.

A Major I 1⁴ 1⁶

Locrian V V⁷ Major I

Ravel, *String Quartet*, First movement.A Locrian V^7

Major I

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Pushing the process one step further, Rangström and Stravinsky lower the seventh of the Locrian V chromatically thus forming a major chord with a minor seventh. In the parenthesis-chord system this would have to be called either V^7 of the leading tone or V^7 of the lowered tonic, both unlikely designations in the following examples, since the chord in question proceeds directly to the tonic. The name Locrian V^7 seems to have a certain logic especially when the resolution is to I. This particular progression, however, is not widely used at the present time and its place is not yet definitely fixed.

Rangström, *Der Becher*.

F# Major I

Locrian V^9_b

Major I

Stravinsky, *Symphonie de Psaumes*,
Opening of first movement.



E Minor I

Locrian V^7_b

Minor I

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The deceptive cadence (V—VI) has been mentioned only in connection with the Locrian V. The progression V—VI in other modes is not frequent but does exist, as the excerpts attest.

Grieg, *Ein Schwan*.

F Major

I

 IV^9_b

Minor VI

Phrygian V VI

Major I^4

Chorus (*unison*)De Sévérac, *Héliogabale*, Act II, No. 4.

rit. *ff*

B \flat Mixolydian V I V I V⁷ VI

I Pedal

V⁷ VI V⁷ VI Eb V⁷

V Pedal

I

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Sibelius, *Märzschnee*, Op. 36, No. 5

E Aeolian V VI V VI II⁶ I⁶

(or possibly pseudo-modal in G Major)

The image shows a musical score for a piece in G major. The melody is written in the treble clef, and the piano accompaniment is in the bass clef. The key signature has one sharp (F#). The melody consists of a series of eighth and quarter notes, with some rests. The piano accompaniment features chords and single notes, with some measures containing rests. The score is divided into measures by vertical bar lines. The final measure of the piano part has a double bar line.

VII⁷ I VI I V VI G Major V⁷ I

Chapter XI

EXTRA-MAJOR-MINOR CHORDS: SUBMEDIANT FORMS

DORIAN VI is another diminished triad the real root of which is placed a third below; that is, in this case, on the fourth degree of the scale. In other words, the chord is an incomplete Dorian subdominant (Dorian IV^{o7} or IV^{o9}₇) and conforms to the same progression patterns. (See above, chap. ix.)

C Dorian VI
[Dorian IV^{o7}]
[V^{o7} of IV of IV]
C Dorian VI⁷
[Dorian IV^{o9}₇]
[V^{o9}₇ of IV of IV]

The Dorian IV⁷ may be used parenthetically as V⁷ of IV of IV or V⁷ of VIIth. In the following quotation from the *Clarinet Quintet* by Brahms the incomplete form of the chord is illustrated.

Brahms, *Quintet*, Op. 15, Final movement.

B Minor I
V₃⁴
I⁶ V^{o7} of VIIth V₇ VII (Dorian)
[Dorian IV^{o7}]

Aeolian VI
V
IV
Minor V
I

As stated in Chapter IX, the chords to which the Dorian IV and IV⁷ may progress are III, V, VII, and I. The resolution to VII is shown on page 80, and instances are given below of the Dorian IV^{o7} (Dorian VI) progressing to each of the other chords except III, an example of which was not found. No particular significance, however, is attached to this hiatus.

Moussorgsky, *Boris Godounov*, Act IV, scene 2.

Ab Dorian I₄ VI⁷ V₄ VI⁷ V₄ I

Ibid., Act IV, scene 1.

Ab Minor I Lydian Dorian II III VI⁷ V I

Dvorák, *Symphony No. 5*, First movement.

A Major I VI I A Dorian I VI I

Preludium III.

C Dorian I VI⁷ I 7 II

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* * *

C Locrian VI⁷
[v⁷ of N⁶]

Locrian VI⁷ is a major V⁷ type, and is frequently employed parenthetically as V⁷ of N⁶.

Brahms, *Quartet*, Op. 51, No. 1, First movement.

A Minor I

V⁷ of N⁶
[Locrian VI⁷]

N⁶
[Locrian II]

(Minor) V⁷

I

Mozart, *Don Giovanni*, Overture.

D Minor V⁶ I

VI

V⁷ of N⁶ N⁶
[Locrian II]
VI⁷

I⁴ V

The chord is not limited, however, to this one use: it may resolve to several other harmonies, among them, the subdominant.

Moussorgsky, *Without Sun*, No. 4,
"Within Four Walls."

D Major I

Locrian VI⁷
[V⁷ of N⁶]

I Pedal

Major IV

V⁷

Pizzetti, *I Pastori*.

Set-tem-bre, an-dia-mo.

A Aeolian

I

Locrian VI⁹
[V⁹ of N^{6/2}]

E-tem-po-di-mi-gra-re

Dorian IV

I

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Another chord which may follow the Locrian VI⁷ is the Major or Minor V⁷. This progression involves the chromatic alteration of the Locrian dominant (the note) by raising it a semitone in order that it may conform to the ordinary dominant. It is as if the composer, having used an extreme harmony, wished to reaffirm the tonality by introducing the strongest chord possible, a Major-minor V⁷.

Chabrier, *La Sulamite*.

Eb Major I

Locrian VI⁹Major V⁹Dvorák, *Mazurka*, Op. 49.

Violin

Orch.

E Minor VI

Locrian
VI⁴

Minor V⁷ I

Franck, *Prélude, Chorale, and Fugue*.

E^b Major I III² Locrian VI⁷ Minor I

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E Major V I

(V) Locrian VI⁷ Major V⁷ I

[V⁷ of N⁶]

The most important function of the Locrian VI⁷ is to form a cadence. The progression Locrian VI⁷ to major or minor I is not a strong one, yet it is often quite effective.

Moussorgsky, *Without Sun*, No. 2.
 "Thine Eyes in the Crowd now Avoid Me."

D Locrian VI⁷ Major I

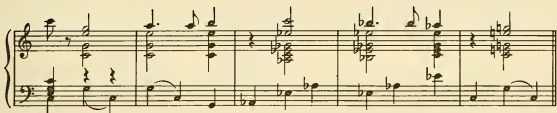
I Pedal

Brahms, *Romanzen aus Magelone*, "Sulima."

E Major I

Locrian
VI⁷ Major ISmetana, *Braniboriv V Cechach*, Act I, introduction.

C Minor I

Locrian
VI⁷ Minor ILocrian
VI⁷Cui, *Trios Scherzos*, No. 1.

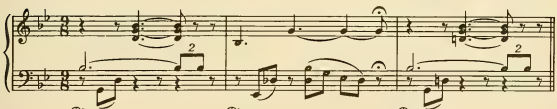
C Major I

Locrian VI⁷

Major I

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Fauré, Op. 103, No. 3.



G Minor I

* Locrian
VI⁷* Minor
I

*

Ravel, *L'Heure Espagnole*, Scene XV.E Locrian VI⁷[Mixolydian]
V I

Gershwin, *Sweet and Low Down*, Final Cadence.

G Major V^7 I Locrian VI^9 Major I

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Gershwin, *I'll Build a Stairway to Paradise*, Final Cadence.

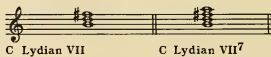
C Major V^7 I Locrian Major VI^9 I

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Chapter XII

EXTRA-MAJOR-MINOR CHORDS ON THE SEVENTH DEGREE

THE LYDIAN VII and VII⁷ are the only chords on the *leading tone* which do not have an established place in common practice. Under the conventions of the major-minor system the chromatically raised fourth degree of the scale (the fifth of Lydian VII) would imply a harmonic turn toward the dominant.



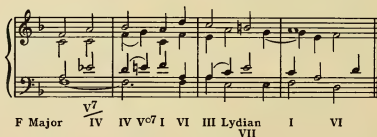
A major chord on the major supertonic which progresses to the dominant is recognized as a parenthesis chord and designated *V of V*. A minor chord on the leading tone (which contains the raised fourth degree), resolving to the dominant, might be called *III of V*. But this is less reasonable, since III has not the harmonic function that dominant and subdominant possess. The chord is therefore termed *Lydian VII* even when it resolves to *V*.

Fauré, *Prélude en Fa Majeur*, Op. 103, No. 4.

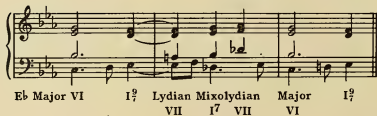


Such a progression is weak and, no doubt for that reason, has had little use. Also weak and equally rare is the progression Lydian VII to I.

Brahms, *Ein deutsches Requiem*, Op. 45,
First movement.



Fauré, *2nd Quintet*, First movement.



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There seems to be no other progression in use in which either Lydian VII or VII⁷ figures. The implication is that the chord has insufficient color to compensate for the unconvincing harmonic successions of which it is a part.

* * *

C Mixolydian } VII
C Dorian }
C Aeolian }
[IV of IV]
[V of III]

C Mixolydian } VII⁷
C Dorian }
C Aeolian VII⁷
[V⁷ of III]

The conventional use of Mixolydian, Dorian, and Aeolian VII is as *IV of IV* although examples are by no means common.

Beethoven, *Missa Solemnis*, "Gloria."

In glo-ri-a De-i pa-tris A-men.

D Major I IV [IV of IV Mixolydian VII] IV V I

De Sévérac, *Héliogabale*, Act I.

Bb Mixolydian I V [IV of IV IV VII] V7 I V7 I

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22, N. Y.

The most common succession involving this type of subtonic chord is Mixolydian, Dorian, or Aeolian VII—I and although it has other uses, it is especially important as a cadence.

Moussorgsky, *Boris Godounov*, Act IV, scene 2.

Eb Major I Mixolydian VII Locrian VI⁷ Mixolydian VII Major I

Moussorgsky, *Without Sun*, "Within Four Walls."

So it is night with me, Cold, si - lent night with me.

D Dorian I IV VII Major I

Gershwin, *Second Rhapsody*.

F Mixolydian I VII I VII I

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Liszt, *Graner Messe*, "Credo."

A - - - - - men.

D Aeolian III⁶ I VII III IV VI VII I

Brahms, *Von ewiger Lieber*, Op. 43, No. 1.

C# Aeolian I III VII I IV Minor I

Tschaikovsky, *Nutcracker Suite*, Arabian Dance.

G Aeolian I VII I VII I VII I

V } Pedal I

Glazounov, *Der König der Juden*,
Introduction and Chorus.



A Aeolian IV VII⁴ I

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Gretchaninov, *Liturgia Domestica*.

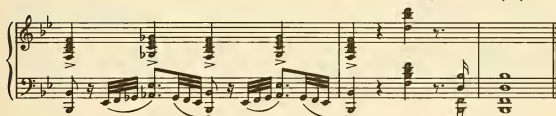


C Aeolian I VI VII Major I
I Pedal

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There seems to be no reason why the Mixolydian VII⁷ and Dorian VII⁷ should not precede the tonic chord, especially since they are used in other connections. The fact remains, however, that the above progressions seem not to have been used, although Aeolian VII⁷—I is fairly frequent.

Schumann, *Humoreske*, Op. 20.



B \flat Major I Aeolian VII⁷ Major I Aeolian VII⁷ Major I

Grieg, *Herbststimmung*, Final cadence.



G Aeolian I VI VII⁶ I
[11+6]

Dvorák, *Gute Nacht*, Final cadence

E Minor I II⁷ Aeolian VII⁷

I p pp

Ravel, *Valses Nobles et Sentimentales*, No. 3.

E Aeolian VII⁷ I⁷ VII⁷ I

I Pedal

I? Locrian VI⁷ Aeolian VII⁷ I⁷

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Gretchaninov, *Liturgia Domestica*.

C Aeolian VI⁷ VII⁷ Major I

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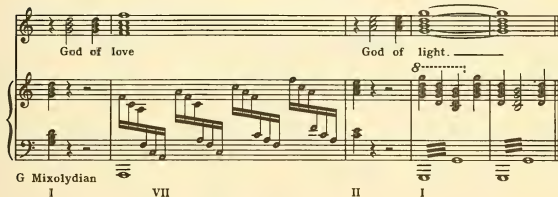
Ibid.

C Major I Aeolian VI VII⁷ Major I

No other progressions involving the subtonic chords in question are so important as those just illustrated. There are, however, a number of alternative progressions which seem of sufficient consequence to be mentioned here.

A. Mixolydian VII to II:

Stanford, *Eden*, Chorus, "God of Night."



G Mixolydian I

VII

II

I

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Gretchaninov, *Liturgia Domestica*.



C Mixolydian VII

II

(9)

Major

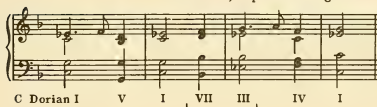
V

I

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B. Dorian VII and VII⁷ to III. [For Aeolian VII⁷, see below at G.]

Guilmant, *Impression Grégorienne*.



C Dorian I

V

I

VII

III

IV

I

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Fauré, *2nd Quintet*, Third movement.

B Aeolian IV⁷ VI⁷ II Dorian V⁷ VII⁷ III Aeolian VI⁷ I⁷ IV I 6

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D. Mixolydian VII to V.

E. Aeolian VII to V.

De Sévérac, *Héliogabale*, Act II, No. 2.

C Major I (VI) Mixolydian VII (V) V I

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Dargomijsky, *Stone Guest*, Opening scene.

C Major (minor 6) V⁷ I Aeolian IV 7 VII Minor V⁷ I Dorian VI⁷

Brahms, *The Death of Tenebris*, Op. 17, No. 4.

C Minor I Aeolian III VII Minor I⁶ V I

F. Aeolian VII to VI.

Sibelius, *Symphony No. 1*, First movement, Coda.

E Minor V^7 I Aeolian VII VI II I Minor V^7 I

G. Aeolian VII^7 is a Major V^7 form and is therefore used in the secondary dominant system as V^7 of III. Note that Ravel used the chord with ninth in his *Tombeau de Couperin*.

Ravel, *Le Tombeau de Couperin*, No. IV. Rigaudon.

C# Major V^7 of III III V^7 I V^7 I

[Aeolian VII^7]

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Bruckner, *Quintet*, II.

Scherzo

D Minor I [V^7 of III
Aeolian VII^7] III

II V⁷ VI V⁷ I II V

* * *

C Phrygian } VII C Phrygian } VII⁷
C Locrian } VII C Locrian } VII⁷

The Phrygian VII and VII⁷ are identical in type with those of the Locrian and the mode to which one of these chords properly belongs is not defined without reference to the surrounding harmonics. The fifth degree of each mode is its distinguishing feature. If it be perfect, the mode is Phrygian, if diminished, it is Locrian. By this means the following examples are declared to be in one or the other mode.

Either with or without the seventh, the Phrygian-Locrian VII moves logically to the tonic. The progression forms a cadence whose expression may range from the suave or mysterious to the brusque or merely matter-of-fact.

Debussy, *Pour le Piano*, Prélude.

A Phrygian I VII I

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A Minor I V Phrygian VII I

Brahms, *Mein Herz ist schwer*, Op. 94, No. 3.
Final cadence.

G Major Phrygian VII Major I Phrygian VII

Major I col 8: Phrygian V⁷ Major I

Glazounov, *Le Kremlin*, Second movement.

A Mixolydian I⁶ V I⁶ V Phrygian VII III II VII Major I

Malipiero, *La Principessa Ulalia*.

D Aeolian I V I⁶ IV Phrygian VII⁶ I Aeolian V⁷ I

Malipiero, *Rispetti e Strambotti*, Final cadence.

E Phrygian II⁷ III VI III⁶ IV VII I

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Gretchaninov, *Liturgia Domestica*.

C Phrygian VII I

V
I } Pedal _____

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Particularly noteworthy is the first example of Phrygian VII⁷ quoted below, not only because of its early date (1822-1823) but also because Weber has been disparagingly characterized as a composer whose harmony consisted chiefly of tonic and dominant.

Weber, *Euryanthe*, Act II.

E Major Phrygian Major VII⁷ I V⁷ I

Brahms, *Sonata*, Op. 1, Andante.

C Major V I V VI Phrygian VII⁷ I III₄ IV₅[#] Major 1 $\frac{1}{2}$

Saint-Saens, *Quartet*, Op. 112, 1, Final cadence.

E Phrygian I II⁶ VII⁷ Minor I V

I Phrygian II⁶ VII⁷ I Minor V

Phrygian I VII⁷ I VII⁷ I VII⁷ I VII⁷

I

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Rimsky-Korsakov, *Capriccio Espagnole*, No. 4. Scena e canto gitano.

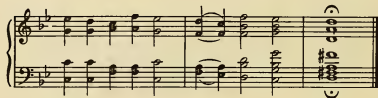
Bb Phrygian V Major I Phrygian VII⁷ Major I

Phrygian VII⁷ I VII⁷ I VII⁷ I VII⁷



I

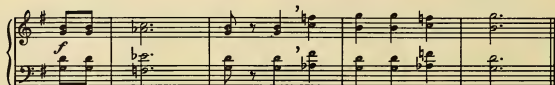
Rimsky-Korsakov, *Snégourotchka*,
"Hymn des Berendeys," Final cadence.



D Phrygian

VII⁷ Major I

Jacobi, *Synagogue Service for Sabbath Eve*,
"Mi Chomocho—I," Final cadence.

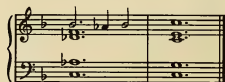


G Major I

Phrygian
VII⁷Major
IPhrygian Major
VII⁶ IPhrygian
VII⁶ Major
I

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Gretchaninov, *Liturgia Domestica*.

C Phrygian VII⁷

Major I

I Pedal

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Eichheim, *Aedh Wishes His Beloved Were Dead*.



F Dorian V

Mixolydian Phrygian
VII I⁷ VII⁷ IDorian Minor
IV⁹ V I

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Respighi, *Toccata for Piano and Orchestra.*

D Major I Locrian VII (v7) Major I Aeolian VII Major I

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The other progressions associated with the Phrygian VII⁽⁷⁾ and the Locrian VII⁽⁷⁾ are of less importance but merit some attention. They are outlined below.

A. Phrygian VII and VII⁷ to II.Saint-Saëns, *Quartet*, Op. 112, First movement.

E Minor I⁶ II⁶ I₄⁶ V I Phrygian VII⁷
 Minor I Phrygian VII⁷ II V⁷ II₄⁶ V⁷
 II V I

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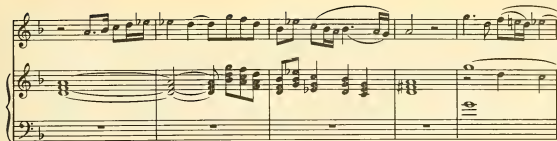
Moussorgsky, *Boris Godunov*, Act I, scene 1.

G Major I I Pedal Phrygian I⁷ VI IV VII⁷ (II) Major I I Pedal

Borodin, *2nd Quartet*, "Notturmo."

A Major V⁶ Phrygian VII⁷ Minor II² II⁷ Major V

I Pedal

Respighi, *Maria Egiziaca*, I.

D Phrygian I (IV III I VI II) VII IV VII Major I IV Phrygian II



IV IV⁷ VII IV Major V²_{5b} ($\frac{6}{3}$ $\frac{4}{b}$) Phrygian I V⁴₃

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Saint-Saëns, *Le Déluge*, Part I.

F Minor I Locrian VII (V⁷) VII IV Minor V

D. Phrygian or Locrian VII to V.

Gershwin, *Rhapsody in Blue*.

G Major I⁴₄ Phrygian II⁴₄ Major I⁴₄ Phrygian II⁴₄ Major I⁴₄ Phrygian II⁴₄

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VII 7

Major V7 I

Moussorgsky, *Without Sun*, No. 2.
 "Thine Eyes in the Crowd Now Avoid Me."

D Phrygian II I3# VII Major IV Locrian VII 7 V VI 7 I

I Pedal

E. Phrygian VII to VI.

Brahms, *Symphony No. 4*, Second movement.

G Major I

Phrygian VII VI

V Aeolian IV Major I

Part II: Kindred Studies

Chapter XIII

PSEUDO-MODALITY

AN EFFECT called *pseudo-modality* is produced by violating the conventional progression-patterns of the major-minor system. Specifically, this consists of emphasis on the secondary chords (II, III, VI, and VII) and use of the progressions VI-V and V-IV. In a sense, this is a reversion to the ecclesiastical practice and for that reason is sometimes called the Ionian mode. It is more nearly correct, however, to consider that certain progressions permissible under the old modal system (for instance, V to IV) have been applied to the major, hence the name *pseudo-modality*. This is a reversal of the process by which the modern equivalent of the old Church scales came into being. The latter, the Harmonic Modes, are the result of imposing major-minor conventions on the diatonic modes and, from that point of view, are pseudo-major-minor.

There are very few examples of pseudo-modality which approximate the effect of the ecclesiastical Ionian with its rigid conventions of dissonance and severe style.

Thompson, *Pueri Hebraeorum*.

G Major V IV V IV V IV I II I V I

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In order to evoke a religious aura some composers have adopted a pseudo-modal style which, although without dissonance and quite simple, would never be mistaken for anything but modern composition because of some other consideration (harmonic instead of contrapuntal conception, for instance).

Respighi, *Maria Egiziaca*, Episode I.

F Major I VI I IV⁶ VI II VI II I VI I VI V IV VI II V III II III IV⁶ II I

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Debussy used pseudo-modality for the purposes of impressionism, but not often so simply as in the following example.

Debussy, *La Damselle Élué*.



C Major III II I II III II I II

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The most conspicuous difference between pseudo-modal practice and that of the Ionian is the use of dissonance with the former. The final cadence of *La Damselle Élué* illustrates this, and *La Fille aux Cheveux de Lin* is perhaps the most cited example.

Debussy, *La Damselle Élué*.



C Major IV II III VI (4/2) IV V⁷ I IV III I IV III



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Debussy, *La Fille aux Cheveux de Lin*.



Gb Major VI⁷ IV⁷ V⁷ VI⁷ II⁹ V



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Apparently it is Lesueur (1760-1837) who must be credited with having first used pseudo-modality, although his outlook was principally antiquarian. (See below, Book Two, chap. xxv.)

Lesueur, *3me Messe Solennelle*, "Credo."

During the nineteenth century pseudo-modality became common property and found favor with the romanticists as well as with members of the several national schools. (See below, Book Two, chaps. xxvi-xxix.)

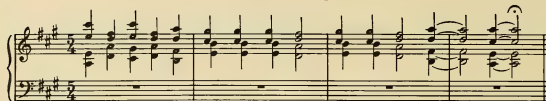
One of the modern developments in the realm of pseudo-modality is the use as a pedal of a tone other than the tonic or dominant.

Respighi, *Maria Egizicaca*.



Pseudo-modal final cadences are used to some extent but are not so frequent as the true modal forms. (See above, chaps. vii-xii.)

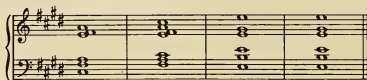
Rangström, "*Ik weet en Franken amoreus*."



A Major I IV III IV II⁷ III _____ IV III⁷ _____ IV II⁷ _____ I

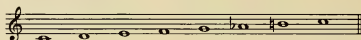
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Gretchaninov, *Credo*, Final cadence.



E Major II⁷ _____ I _____

Although not strictly pseudo-modal, the employment of the minor submediant in Major is so common with composers who do use modality and pseudo-modality that it is often referred to as a "pseudo-modal" effect. Helmholtz calls this the "minor-major" [*Holl-Durtonart*].¹



C : tonic

An odd circumstance is that the device is as rare with Italian composers as it is frequent with writers of northern Europe. The example below is perhaps unique.

Verdi, *Aida*, Act. I.



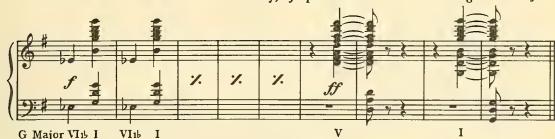
A^b Major I II^{5b} I II^{5b} I V^{o4}₃ I

Note that the chord in which the minor submediant appears is the supertonic and not the subdominant, as is usually so with the composers of Germany, Russia, Scandinavian countries, and Czechoslovakia. We must infer that the effect of the "minor-major" is foreign to Italian temperament.

¹H. Helmholtz: *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (1863), p. 467.

French composers have found it but little more to their taste. The final cadence to D'Indy's *Symphonie sur un Chant Montagnard Français* is an outstanding example.

D'Indy, *Symphonie sur un Chant Montagnard Français*.



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Chopin, perhaps because of his Polish blood, was fond of using the minor subdominant chord in Major.² Almost alone among nineteenth-century German composers, Brahms showed a decided predilection for the same effect.³ The Russian, Czechoslovakian, and Norwegian national composers used the device too frequently to need illustration.

Almost always the minor sixth appears as the third of the simple subdominant chord, which fact makes the following exceptions noteworthy.

Sokolov, *Quartet*, Op. 14, Final cadence.



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Tschaikovsky, *Casse-Noisette Suite*.

"Danse des Mirlitons"



²See: 17 Polish Songs, Op. 74, No. 10.

³Especially in the final cadences of his songs. See also, Variations XXIII, and XXIV of Variations and Fugue on a

Theme by Handel, Op. 24, and the final cadence of Intermezzo, Op. 76, No. 4.

THE CASE FOR THE LOCRIAN MODE

FROM A HARMONIC point of view the Locrian mode was treated in Chapters VI through XII as a part of the complete diatonic system. The several chords were discussed and notice taken of the restrictions which apply to the harmonies of this mode. It was concluded that Locrian chords can be employed freely in the body of a composition, but that cadences terminating with the diminished tonic triad are less readily acceptable.

A general consensus holds that the Locrian mode exists only as a theoretical curiosity and has no place in practice, but a number of writers emphatically declare that the mode is practicable and is found in both art and folk music; they even supply examples from various sources to support their arguments.

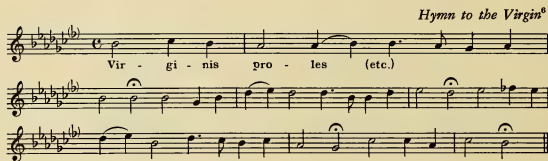
Westphal conjectured that the ancient Greeks used the *b-b* scale (Greek Mixolydian) and quoted two specimens¹, but since these are only fragments they are not conclusive proof. Combarieu offers more positive evidence in the words of Plato, who said that "under the influence of the Mixolydian [Locrian] the soul is troubled and constricted."²

It is truly distressing to see writers like Bellermann and Helmholtz, by the authority of their names, contributing to the perpetuation of the errors that a simple examination of the facts suffices to refute. One of these errors is the pretended non-existence of the B and F modes [Locrian and Lydian] in the liturgic chant of the Roman Church.³

Although the B-b scale was rejected by most of the theoreticians of Ecclesiastic chant as being unmusical, remains of the [Greek] Mixolydian (B-b), more or less disguised as a transposition down a fifth, are frequently found in the Roman Antiphonary. These are the chants of the plagal *deuterus* (4th Gregorian mode) [E-e when transposed down a fifth] which have the b^b or in which the fifth above the final is not heard.⁴

Gevaert lists the following plain chants as Locrian:

Antienne: Ecce lignum crucis. *Introits*: Nos autem gloriari; Misericordia Domini. *Offertoires*: Terra tremuit; Oravi Deum. *Communions*: Memento verbi tui; Feci iudicium. *Alleluia de l'Ascension*: Ascendit Deus. *Répons*: Qui Lazarum, etc.⁵



Perreau also gives a list of Locrian plain chants:⁷

Sanctus (Samedi Saint, édition de Solesmes).

Media vita . . . Sanctus Deus (Répons du manuscrit de Saint-Gall, dans les "variae preces" de Solesmes).

Venite, exultemus Domino (Psaume de l'office des Matines).

Quem vidistis, pastores? (Répons des Matines de Noël).

As an illustration he quotes one of the examples mentioned by Gevaert, *Nos autem gloriario*.⁸

¹Rudolph Westphal and Rossbach: *Metrik der griechischen Dramatiker und Lyriker* Leipzig, (1854-1865), I (Supplement), pp. 50-54.

²Jules Combarieu: "Cours du College de France," *La Revue Musicale* (Oct. 1, 1906), p. 441.

³Fr. Aug. Gevaert: *Histoire et Théorie de la Musique de l'Antiquité* (Ghent, 1875), p. 146.

⁴*Ibid.*, p. 146.

⁵*Ibid.*, p. 147.

⁶*Ibid.*, p. 233.

⁷Xavier Perreau, *La Pluralité des Modes et la Théorie Générale de la Musique* (Paris, Librairie Fischbacher, 1908), p. 101.

⁸*Ibid.*

B-b mode (transposed down a fifth to E-e)

Nos — au — — — tem glo — ri — á — ri — o pór —

tet — in crú — ce dó — — mi — ni nós — tri — Je — su

Chris — ti, in quo est sá — lus, vi — ta — et

re — sur — réc — ti — o — nós — — tra, per quem sal —

vá — ti et li — be — rá — ti — sú — — — mus.

In speaking of the Locrian and its plagal, Dunstan says he includes them "for the sake of completeness."⁹

These modes (the Eleventh and Twelfth of the numerical designation) are now regarded as obsolete; but Bach used them, and that must be an excuse for passing reference. Further, they represent the one case in modal music where the final chord *cannot very well be diatonic*.¹⁰

Apparently by the last statement Dunstan means that a diminished triad is almost unacceptable as a final, that it must be altered to a major or minor tonic chord. This conclusion is borne out by what he has to say about the following melody:

It is almost impossible to harmonize this melody satisfactorily without using the triad of A-major (or even D-major) as the final chord—and this was Bach's method.

The A-major triad is the more "orthodox" of the two.¹¹

Mode XI

Melody (A. D. 1302)

It should be observed that he does not say that the diminished Locrian tonic triad is *impossible* as a final chord: he allows himself a loophole by using the qualifying *almost*. It is just this possibility on which Combarieu seized when he wrote that the Greek Mixolydian scale . . .

. . . from B to b, of that sort which has, from our point of view, the chord b-d-f as the fundamental harmony, which, being essential, can and should serve as the conclusion of a melody written in the Greek Mixolydian. Today, no student would dare end any work whatsoever on that chord because we should interpret it as a dominant seventh chord without root, and, by that token, it appears to us as a dissonance demanding resolution. It is regrettable, however, because in requiring a perfect chord on C-tonic to succeed b-d-f, we stick to the commonplace and to the beaten track and abandon an effect which in some cases might be very poetic.¹²

Dunstan quotes three Locrian melodies, presumably from plain chant.¹³

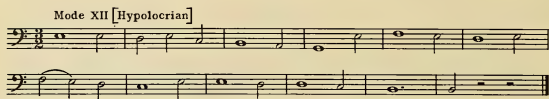
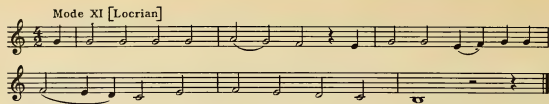
⁹Ralph Dunstan, *Diatonic Modal Counterpoint* (London, Novello and Co., 1920), p. 52.

¹⁰*Ibid.*, p. 53.

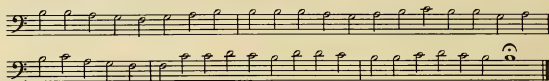
¹¹*Ibid.*

¹²Combarieu, *loc. cit.* (June 1, 1906), pp. 257-258.

¹³Dunstan, *op. cit.*, pp. 53-54. The third example is labeled *Mode XII* transposed, but since the melody exceeds the lower limit of the octave e-e by but one degree (which is allowed) it must be concluded that it is an error and should be considered *Mode XI* (Locrian).



Hammerich found a Locrian melody in an Icelandic manuscript of 1700:

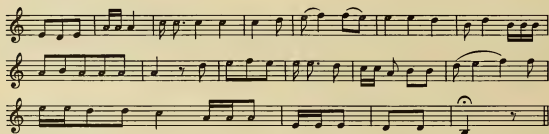


The tonic here is *b*, the melody ranges downward a fourth to *f* and a third upward to *d* and is therefore plagal. Nevertheless, one may search through the entire system of the twelve recognized Church modes without finding the frame into which this melody fits. It is first found as one of the two modes which Glareanus rightly designated as 'rejected' and was called Hypolocrian [plagal Locrian]—the 14th mode.¹⁴

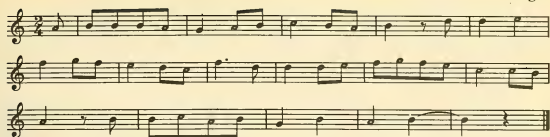
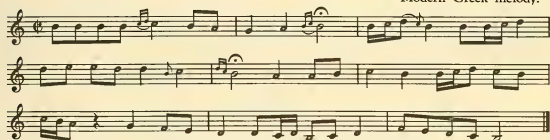
Locrian folk songs are very rare, but not nonexistent, as the following examples bear witness. The first melody given below is not clearly Locrian although it ends on *b*. Owing to the notes emphasized in the melodic line, it seems more closely related to the tonic *a*.

In free recitative

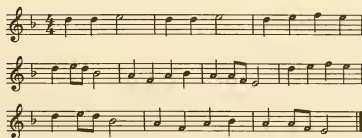
*Lament for the Son of Fineen Dubh.*¹⁵



¹⁴Angul Hammerich, "Studien über isländischen Musik," *S.I.M.* ¹⁵*Journal of the Folk-Song Society* (1918), p. 200. (1899—1900), I, pp. 347-348.

Old Swedish folk song.¹⁶Modern Greek melody.¹⁷Modern Greek melody.¹⁸

Japanese Air.



Whereas the harmonies of the Locrian mode have become common in compositions of the contemporary period, Locrian melodies are less frequent. An example found in the "Interlude" from Debussy's *Sonata for Flute, Viola, and Harp* is almost unique.

¹⁶Gevaert, *op. cit.*, p. 150.

¹⁷Otto Heilig, "Slovakische, griechische, walachische und

türkische Tänze, Lieder, u.s.w.," *S.I.M.* (1902-1903), IV, pp. 295-296.

¹⁸*Ibid.*, p. 296.

Debussy, *Sonata for Flute, Viola, and Harp*, "Interlude."

C Locrian - - - - - Major

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This melody is usually regarded as deriving partly from the whole-tone scale, but when compared with the following whole-tone motive from *Pour un tombeau sans nom* which greatly resembles it, the difference is marked.

Debussy, *Pour un tombeau sans nom*.

D (Whole-tone scale)

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The objection that musicians most often lodge against the Locrian mode as a vehicle for musical ideas is not that it contains a tritone between the tonic and the dominant an augmented fourth below, nor that the tonic triad is diminished: the reason commonly given is that they cannot "feel" the mode. This means that the listener, unaccustomed to hearing the mode and prejudiced by his exclusive major-minor experience, does not readily comprehend the component tones of the melody through their relationship to the strange tonic. In other words, it is impossible to feel the tonic as the tonal center of gravity, or at least the tonality is felt to be unstable.

It is a mistake to make final judgments purely on the basis of first impressions, especially when there is clear evidence of bias. Many musicians reject the Locrian mode without careful consideration, without being able to sing¹⁹ a single Locrian melody from memory, and without making an effort to escape the tyranny of the major-minor concepts.

Most objectors to the Locrian can be placed in the above class, yet there are some who have been more careful before discarding the mode. It must be granted that for such persons the Locrian does not exist. On the other hand, the sincerity of Combarieu, Perreau, Hammerich, Dunstan, and others, cannot be questioned. From such conflicting opinions we can only conclude that the Locrian mode is acceptable to some but to others it is incongruous.

There are three subdivisions of Locrian usage: (1) melodic, (2) interpolated harmonic, and (3) terminative harmonic. The first of these has no harmonic concomitants: the final tonic is a single note which does not imply a triad, diminished or otherwise. Examples of such *exharmonic* music are found in ancient plain chant and in folk song unaffected by art music. The second division consists of employing Locrian harmonies in the midst of an otherwise orthodox passage. Many examples of this are found in Book One. The last category is the most controversial: the use of the diminished triad as a final.²⁰ Of the three classes, this is the most difficult to accept, but rejection of the imperfect fifth as a proper concluding chord neither repudiates nor invalidates the two other uses. It would seem that any of these subdivisions might be accepted and the others rejected without being inconsistent.

¹⁹Contrary to popular belief, Locrian melodies are easy to sing: intonation is not difficult. Perhaps because of their decided character, such melodies as the Debussy excerpt or the

Japanese air (quoted earlier in the chapter) are quickly learned and, once committed to memory, are never forgotten.

²⁰For examples, see Book One, chap. vi.

Chapter XV

THE PHRYGIAN AS A MINOR MODE

THE MINOR mode of the major-minor system is a combination of certain features of the Aeolian, the Dorian, and the major scales: from the Aeolian and Dorian came the minor third; the minor sixth derives from the Aeolian, whereas the alternative major sixth may be regarded as belonging either to the Major or to the Dorian; the leading tone and dominant cadential conventions are the contribution of the Major.¹

In the never-ending quest for new musical resources, it was natural that composers should attempt to utilize the Phrygian scale as a Minor mode by joining with it the conventions of the Major dominant cadence. The imposition on the Phrygian of cadential practices characteristic of the Major is the reversal of the process by which the most conspicuous feature of the former (the minor second degree) was made available for use with the Major mode.

In the following final cadence the melody is F-Phrygian, yet the underlying harmony is conventional major-minor.

Sibelius, *Belsazar's Gastmahl*, Op. 51, No. 3. "Nachtmusik."

The musical score consists of two systems of piano accompaniment. The first system shows a melody in F-Phrygian (F, G^b, A^b, B^b, C, D^b, E^b) over a harmonic background of F Minor I₄⁶ (III⁶) and V₄⁷ [Phrygian V₄⁷]. The second system continues the harmonic progression, showing the resolution of the Phrygian dominant seventh.

This produces a Phrygian dominant seventh with a raised third forming the leading tone. It may be regarded as a major dominant seventh with lowered fifth, but since the diminished third (e^b-g^b) is outside major-minor practice, such as analysis is less plausible.

The $V_{4/3}^7$ is a part of common major-minor practice as an "augmented six-four-three" chord, in which case the lowered fifth occurs in the bass.

Dvorák, *Liebeslieder*, Op. 83, No. 7.

The musical score shows a piano accompaniment with a sequence of chords: G Major I, V₃⁶⁺, I, V₃⁶⁺, and I. The chords are analyzed as part of a common major-minor practice sequence.

¹For a full discussion of the subject, see Book Two, chap xxi.

All such augmented sixth chords which resolve to the tonic cannot be attributed to the chromatic lowering of the second degree of the major or minor scale. In the next example the augmented sixth seems to have come about through chromatically raising the seventh degree of the Phrygian scale, this being the mode employed at that point, as is proved by the bass of the second and fourth measures.

Rimsky-Korsakov, *Mlada*, Act II, Scene 4.

C Phrygian IV I $V^{\circ}_{\flat_3}$ I II I^6 IV I $V^{\circ}_{\flat_3}$ I II I^6 IV I

Respighi even used a major sixth degree in connection with the Phrygian, thus imitating the melodic form of the Minor scale.

Respighi, *Belkis, Regina di Saba*,
"Danza dell'offerta."

A Phrygian I $I+6^{\#}$ $V^{\circ}_{\flat_3}$ I
I Pedal

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Franck frequently used the $V^{\circ}_{\flat_3}$, sometimes with the diminished third instead of the augmented sixth. There is no doubt that he regarded it as an extension of classical harmony and thus it may be regarded, especially with reference to the manner in which he employed it.

Franck, *Symphony*, First movement.

D Minor I $V^{\circ}_{\flat_3}$ I^6
[Phrygian \flat_3]

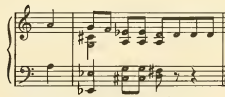
Franck, *Prélude, Chorale, and Fugue*.

C Minor I^6 $V^{\circ}_{\flat_3}$ I $V^{\circ}_{\flat_3}$ IV^6 II^6 I
[Phrygian $V^{\circ}_{\flat_3}$] [Phrygian $V^{\circ}_{\flat_3}$]

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Most examples are susceptible to dual analysis: either major-minor with lowered supertonic, or Phrygian with raised seventh degree. The two possible interpretations are given with the following excerpts but, because of the known modal predilections of the composers and the freedom with which the altered chord is employed, the Phrygian explanation would seem to be the more valid.

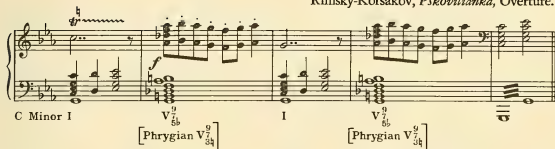
Moussorgsky, *Boris Godounov*, Act IV, scene 1.



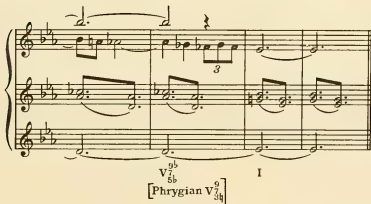
D Phrygian V V_6^{\sharp} I^{\sharp}

D Minor V V_6^{\flat} I^{\sharp}

Rimsky-Korsakov, *Pskovitianka*, Overture.



Sibelius, *Belsazar's Gastmahl*, No. 4,
"Khadra's Tanz."



From the evidence presented above it may be concluded that there has been some experimentation with the Phrygian as a minor mode with a chromatically-supplied leading tone. Whether or not the venture is to be considered successful must be left to individual opinion at present, since the practice has not been adopted generally. At best the Phrygian-minor mode would seem to be an anomaly, the use of which is restricted to rather special musical circumstances.

Chapter XVI

SUMMARY AND CONCLUSIONS

THERE ARE two systems of harmonic analysis in general use: the traditional system and the parenthesis-chord system.

The first of these is founded on the original figured bass to which have been added modifications and improvements. The most important contributions are those made by Rameau. The chief objects of this system are: (1) to explain the tonal fabric in terms of the dual modality of classical tonality, and (2) to reveal the structure of the component chords (name, type, and inversion). The tonal functions (dominant and subdominant) are related only to the tonic and, as a consequence, an analysis must resort to frequent modulation in order to explain chromatically-formed dominant-seventh type chords.

Although foreshadowed by Piutti, the parenthesis-chord system of analysis was brought to its present state of development by Weidig and Piston. Slightly less concerned with details of inversion and chord type, it concentrates on revealing chord progressions by capitalizing the functions of the dominant and subdominant. This analysis results in a system of secondary (or parenthesis) dominants and subdominants. By means of this system certain chords formerly considered modulatory are recognized as being dominant or subdominant functions of the major-and-minor-scale degrees (except the leading tone) as if these were secondary tonics. The system has obvious advantages in that it can more readily disclose extended applications of the typical major-minor progressions.

The essential difference between the two methods of analysis is that the first has as its object to trace the deflections in the course of major (and minor) diatony, whereas the second aims to disclose the conformity of the chordal catenations with the conventions of classical minor-major tonality.

In their different ways, the two systems are dedicated to classical harmonic tradition. They attempt to evaluate every tonal combination in terms of major-minor practice and, although this is valid for the greater part of the music since 1600, it does not take into account the decrecence of major-minor dominance and the revival of modality during the past hundred years. Not only have major-minor progression patterns come to be violated freely, but modal harmonies are now common.

The major and minor scales are but two of the complete system of diatony. The other modes are Lydian, Mixolydian, Dorian, Aeolian, Phrygian, and Locrian. Although they are of the same diatonic form and bear the same names as the ecclesiastical scales, modern modal practice is so different that they might better be called *Harmonic modes*.¹ Like the major and minor, these scales are interchangeable over a tonic, a fact which has an important bearing on modern harmonic practice, since it means that a composer may at any time draw on the harmonic resources of modality.

It must be pointed out that the parenthesis-chord system is a theory of extended major-minor dominant and subdominant functions and that by the very names of the chords, their resolutions are implied. For this reason, the parenthesis designations indicate a more circumscribed use for modal harmonies than is found to be true in actual practice.

Every extra-major-minor chord belonging to the *Harmonic modes* has been used in music of the past fifty years. A complete list of the modal chords and the chords to which they have been found to progress is given in the summary below. Besides the mode names, the usual parenthesis-chord designations are added in brackets where such terms exist.

- a. Locrian I^m [V^{o7} of N^o]
- b. Dorian, Aeolian, or Phrygian I'
- c. Mixolydian I' [V' of IV]
- d. Lydian II^m [V^m of V]
- e. Phrygian or Locrian II [N^o]
- f. Phrygian or Locrian II'

Rare as final chord but used freely elsewhere.
Progresses to IV, II and VI.
Progresses to IV, II, VI, or even I.

Progresses to V (Major or modal) and I.
Progresses to I^o or V.
Progresses to IV, Phrygian VII and I (cadence).

¹See Book Two, second part.

- g. Mixolydian III^(m) [V^(om) of IV] Mixolydian I^(om), (see c. above).
 h. Dorian or Aeolian III^(m) Progresses to VII, V, IV, I (cadence) and Aeolian III⁷ to II also.
 i. Phrygian III^(m) [V⁷ of VI] Progresses to VI, VII, V, IV, I (cadence) and II.
 j. Locrian III Progresses to I (cadence). III⁷ does not appear to have been used.
 k. Lydian IV^(m) [V^(om) of V] Lydian II^(om) (see d. above).
 l. Dorian IV^(m) [V⁷ of IV of IV?] Progresses to VII, III, Major or modal V, and minor I (cadence).
 m. Lydian V⁷; Mixolydian, Dorian, or Aeolian V^(m); Phrygian V^(m) [V^(om) of VI]; Locrian V^(m) Progresses to I (cadence) and VI (deceptive cadence).
 n. Dorian VI^(m) Dorian IV^(om), (see l. above).
 o. Locrian VI⁷ [V⁷ of N⁶] Progresses to II, IV, Major or modal V, and major or minor I (cadence).
 p. Lydian VII Progresses to V and I.
 q. Mixolydian, Dorian, or Aeolian VII [IV of IV] Progresses to IV, V and I (cadence).
 r. Dorian VII⁷ Progresses to IV, V and III.
 s. Aeolian VII⁷ [V⁷ of III] Progresses to III, IV, V and I (cadence).
 t. Phrygian or Locrian VII^(m) Progresses to major or minor I (cadence) IV and V. (Phrygian VII⁷ is occasionally followed by II, III and VI also).

The parenthesis system brought more chords into relationship to a single tonic. Analysis by interchangeability of mode carries the process further (1) by demonstrating that the logical limits of diatonic tonality are wider than hitherto supposed and (2) by showing that these chords have an even closer and direct relationship to the tonal center of gravity. The new system supplies a needed adjunct to existing systems, since it recognizes tonal means which violate the spirit of major-minor tonality. Through the use of interchangeability of mode may be grasped the intrinsic diatony of many harmonic progressions which otherwise must be analyzed as chromatic.

The two principal factors with which harmonic analysis is concerned are chord progressions and the interpretation of the inflections of the essential diatony, which is one of the fundamentals of Western music. Rameau combined the two elements in one system, but his method of accounting for chord progressions was superseded by the invention of the system of secondary dominants and subdominants. There were then two systems of analysis neither of which was complete within itself: both were necessary to explain the harmonic fabric.

Interchangeability of mode now challenges the adequacy of the Rameau system for coping with the intricacies of modern diatony, but offers no improvement on the parenthesis-chord system for exposing the march of the harmony. Until the creation of some new method which will again combine them, it would seem that the functions of harmonic analysis will continue to be divided between two systems.

BOOK TWO: A History of the Diatonic Modes

Part I: Early Systems

Chapter XVII

THE DIATONIC ELEMENT IN ANCIENT GREEK MUSIC

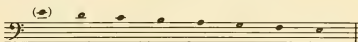
MOST WRITERS on scale systems have confined their expositions to a single time period without warning the reader that earlier and later manifestations would differ in important details. The frequent failure to emphasize that no system is immutable or unchanging has resulted in considerable confusion. Scale systems have changed constantly throughout recorded history and, as a consequence, the subject does not lend itself to a single delineation for any extended period. For this reason it is incorrect to treat the Greek modes as a single system. Some notice must be taken of the evolution from the original Dorian scale to the complex system in use in the fifth century B.C., the subsequent reaction against exotic influences, and the ultimate return to diatonism.

The allusions to music in the works of Plato and Aristotle shed some light on the subject but raise many questions which probably can never be answered. The theories of Pythagoras (582-507 B.C.) are mainly concerned with the physical bases of music. His studies in the mathematical-acoustical relationships are known only through the writings of his followers, and it is not clear just how much connection his work had with the practice of the day.

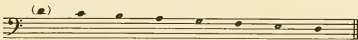
Aristoxenus (third century B.C.) is supposed to have written more than four hundred works on music and kindred subjects. Of these but two remain, one of which is incomplete. Knowledge of his work is supplemented by the writings of a pupil, Cleoneides. Ptolemy (second century A.D.) reduced Aristoxenus' fifteen *tónoi* to seven modes, but whether or not this was in order to conform more nearly to practice is impossible to say. Michomachus and Euclid, both of the fourth century A.D., also advanced musical theories. As early as the fifth century of the Christian era Boethius essayed a reconciliation among the various theories and systems but his success was not great.

Within the last century, the music of antiquity has received a great deal of attention and has been exhaustively treated by Reinach, Emmanuel, Munro, Gevaert, Westphal, Jahn, and others.¹ In view of this and since the object of the present treatment of the Greek scale is but to throw the diatonic elements into relief, no detailed summary is attempted.

Separate origins are ascribed to the two first octave-species (modes) of Greek music. The Dorian,



came from a tone sequence of the lyre, whereas the Phrygian,



was based on a sound series of the Asiatic reed pipe, the aulos. Although both were diatonic series, their independent origins would suggest differences of tuning but

It is possible the divergence between Dorian and Phrygian had been lessened in Plato's time by the occasional employment of *λύρα* and *αὐλός* together.²

The name *Lydian* suggests that this scale also originated in Asia. The other modes might have arisen in as many separate locales, judging from their names: Aeolian and Ionian. Taking this view, the several octave-species with their peculiar tunings must necessarily have suffered alterations in this respect

¹See the *Bibliography* for the titles of these works.

²A. J. Hipkins, "Dorian and Phrygian," *Sammelbände der*

Internationalen Musikgesellschaft (Leipzig), IV (1902-1903), p. 376.

in order to have become incorporated in an integrated system. The alternative to this conclusion is that the theorists, beginning with the two basic and integrated modes, Dorian and Phrygian, quite logically completed the system by using successive tones as primes, and the names were given arbitrarily.

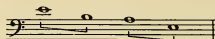
The dialogue of Socrates and Glaucon mentions six modes but the complete system, as given by Cleonides, a pupil of Aristoxenus, had seven.

Diatonic Genus

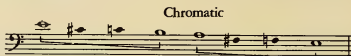
The diagram illustrates the Diatonic Genus with seven modes, each on a separate staff. A vertical dashed line labeled 'Mese' connects the same pitch across all modes. The modes and their corresponding staves are:

- 7. Hypodorian
- 6. Hypophrygian
- 5. Hypolydian
- 4. Dorian
- 3. Phrygian
- 2. Lydian
- 1. Mixolydian

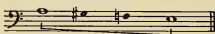
Besides the Diatonic genus there were two derivative genera, the *Chromatic* and the *Enharmonic*,³ in which the two intermediate notes of each of the fundamental tetrachords,



were altered in the following manner:



³Still another genus is given by Emmanuel, the *Neo-Chromatic*. In this the tetrachord type was:



Maurice Emmanuel, *Histoire de la Langue Musicale* (Paris), Librairie Renouard, H. Laurens, Editeur, (1911), I, p. 83.

⁴The sign + is here used to mark the diesis (*diezeis, diazeiren*) or quarter-tone. It represents a sound one-quarter of a tone above the note to which it is prefixed.

To the foregoing table must be added the following:

Chromatic Genus

7. 

Hypodorian

6. 

Hypophrygian

5. 

Hypolydian

4. 

Dorian

3. 

Phrygian

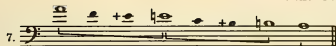
2. 

Lydian

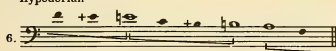
1. 

Mixolydian


Enharmonic Genus

7. 

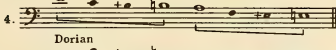
Hypodorian

6. 


Hypophrygian

5. 

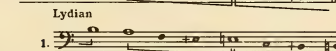
Hypolydian

4. 

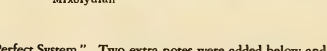
Dorian

3. 

Phrygian

2. 

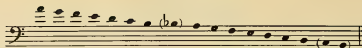
Lydian

1. 

Mixolydian

The complete range was called the "Perfect System." Two extra notes were added below and the b^b gave opportunity for transposition.

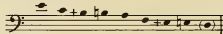
Perfect System



Besides this arrangement there appear to have been others. For instance, Aristides Quintilianus lists six modes of an enharmonic genus which appear to have been in use about 450 B.C.⁵ Note that but one, the *Dorian*, is identical with Cleoneides' list.⁶



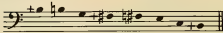
Iastian (Ionian)



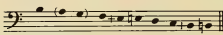
Dorian



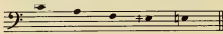
Phrygian



Lydian



Mixolydian



Syntonolydian

This does not exhaust the inventory of variations⁷ but it is sufficient to illustrate the complexities of the subject of scale forms during the Golden Age of Greek music, from the sixth to the fourth century of the pre-Christian era, even before the baffling question of tonal functions is considered.⁸

Any contemporary concept of mode or scale inevitably includes as basic some tonal center of gravity commonly designated as *tonic*. Difficulties are immediately encountered when ancient Greek music is approached with this as a prime preconception. Among modern writers on the period there is wide divergence as to the proper resolution of the problem. Various conjectures have been advanced but instead of clarifying the situation, they have merely misled the casual student by lack of agreement.

There are several possible ways of construing the expressions of ancient writers on the subject of the proper tonic or tonics of the Greek modes. Failure to mark clearly the line between speculation and documented fact has marred the work of some modern scholars and, at least with Westphal's⁹ has seriously compromised the value of the contribution. Three authors, however, who have made definite statements, maintain their positions with considerable plausibility. For purposes of comparison, the three proposed solutions are given below. It is only fair to say that Gevaert, in a later work,¹⁰ modified his views somewhat.

a.) Gevaert bases his conclusions on Gaudentius and lists three pairs of modes.

⁵Theodore Reinach, *La Musique Grecque* (Paris, Payot, 1926), p. 36, note 1.

⁶The list has been rearranged for purposes of comparison.

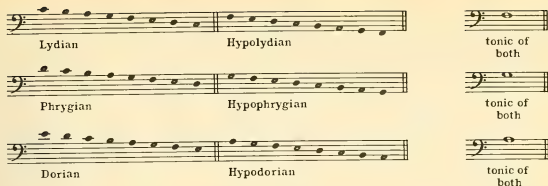
⁷Aristotle mentions Terpander's scale and the scale of Olympos (*Problems*, xix, 32).

⁸The further complication of Aristoxenus' fifteen *trōma* is omitted from the study, the view being taken that these are "keys" and as such, they merely duplicate the modes at other

pitches by transposition. For a brief account of the *trōma* see the article "Greek Music," in *Grove's Dictionary of Music and Musicians* (3d), New York, Macmillan (1935), II, pp. 441-449.

⁹Rudolph Westphal, *Musik des griechischen Altertums* (Leipzig, Viet, 1883).

¹⁰F. A. Gevaert, *Les Problèmes Musicaux d'Aristote* (Ghent, 1903).



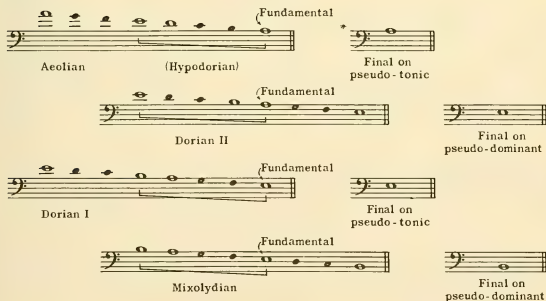
Speaking of the pairs of modes, he says,

They both are related to the same fundamental sound. They have but a single tonic, in the modern sense: that tonic is, for the Lydian group, F; for the Phrygian group, G. Their difference is as follows: in Hypolydian and Hypophrygian compositions, the final sound has the function of a tonic; in the Lydian and Phrygian modes, it plays the role of a dominant. The melodies of modern music almost always end on the tonic. In the antique art it was not so; the principal mode ended on a dominant, the secondary mode, characterized by the syllable *hypo*, ended on a tonic; and that difference was enough, from the viewpoint of the ancients, to modify the expressive character of the melody.¹¹

The Dorian and Hypodorian have exactly the same treatment, according to Gevaert, in spite of an error by Gaudentius giving the tetrachordal division as E B E instead of E A E.¹²

b.) Differing from the above both in grouping of the modes and in the functions of the component tones, Emmanuel comes to the following conclusions¹³ regarding finals:

I. Dorian Group



¹¹*Idem*, *Histoire et Théorie de la Musique de l'Antiquité* (Ghent, 1875), pp. 131-132.

¹²*Ibid.*, pp. 139-142.

¹³Emmanuel, *op. cit.*, I, pp. 96-103.

II. Phrygio-Lydian Group

Hypophrygian (Iastian or Ionian) Fundamental Final on pseudo-tonic

Phrygian Fundamental Final on pseudo-dominant

Hypolydian Fundamental Final on pseudo-tonic

Lydian Fundamental Final on pseudo-dominant

Although the three modes and finals marked with an asterisk correspond exactly to three of Gevaert's (Hypdorian, Hypophrygian, and Hypolydian), there the resemblance of the two tables ceases. Each of Emmanuel's finals is the lowest degree of the scale whether it coincides with the pseudotonic (the fundamental) or the pseudodominant. This condition finds no support in the statement that "no work of antiquity expressly states that the lowest note of the scale of a mode is the tonic."¹⁴ Furthermore, Gevaert takes the stand that the final was not the lowest note of the mode.

c.) In his article "Greek Music" in *Grove's Dictionary of Music and Musicians*, H. S. Macran uses *Mese* and *Tonic* as synonymous terms throughout. He concludes that "... the only modality to be found in it [Greek music] resembles that of our minor scale without the sharpened leading note."¹⁵

This view has support in the law of Greek music as stated by Aristotle¹⁶ to the effect that the *Mese* must predominate in every melody. But, even in such case, could not the *melodic final* have been some note other than the *Mese*? Would this final then be the ancient equivalent of our modern tonic? Or would the *Mese* still be tonic (*Mese-tonality* or *A-tonality*) and the final be secondary as in our imperfect cadences where the melody ends on the third or fifth above the tonic?¹⁷

G Major

Folk Song

G Major

3d above tonic G

In the absence of conclusive evidence, perhaps it is best to take the viewpoint of Reinach, who refuses to commit himself on the question of finals in any mode except the Dorian. Even for the Dorian he is careful to ascribe to the *Mese* a role only *analogous* to our tonic.

¹⁴Gevaert, *op. cit.*, p. 130.

¹⁵Macran, *Grove's Dictionary of Music and Musicians*, II, p. 448.

¹⁶Aristotle, *Problems*, xix, 20.

¹⁷The Greeks also liked, occasionally, to end their melodies on the modal third, "A" in Hypolydian, "B" in Ionian. It was said, in this case, that the music became "intense".

Emmanuel, *op. cit.*, I, p. 177.

There are reasons for believing that the ancients have attributed to one of the notes of their modal octaves a role analogous, at least under certain conditions, to that of our tonic; in truth, where the range of the melodies exceeds the octave, one can scarcely conceive the idea of a mode without the existence of a directing note of the species. The texts of Aristotle and his school leave no doubt in that regard . . . The *mese* is not only the principal tone of the music, the bond between the sounds, it is also the directing note¹⁸ of the melody. In all well-composed melodies, the *mese* returns frequently; whenever the melody departs from it, it hastens to return.¹⁹

He holds that even this conservative conclusion cannot serve as a valid basis for speculation about the tonics of all the ancient modes. "When we examine the modes other than the Dorian, the question of the tonic becomes even more obscure."²⁰

Confronted with this varied assortment of scales and genera, which, it must be realized, is probably far from complete, a number of questions pose themselves. What is the meaning of this diversity? Was Greece the scene of a musical Tower of Babel? Or is it that the records are so fragmentary that they cannot be interpreted? Is it possible that the lack of agreement among the ancient theorists and writers is due partly to their own lack of understanding? Could it be that the written theory did not have a sufficiently close relationship to musical practice to make it a valid record of the music of that day? Since these and many other questions about Greek music will have to remain unanswered, much about it will remain conjectural. Reinach, however, is able to form certain conclusions.

. . . The Greek modes, and the barbaric modes adopted by the Greeks, were formed separately and spontaneously and, in the beginning, must have consisted of very varied types irreducible to the tuning of the Dorian lyre, which tuning was eventually to become the Panhellenic type. In the epoch of the greatest flowering of modal music, from the sixth to the fifth centuries, the number of these types was even more than the seven primary ones possible according to Hellenic principles of the eight-tone system. As Greek art and civilization were consolidated, certain modes, through minor modifications, were adapted to the tuning of the Hellenic lyre while yet conserving something of a distinctive character; some took new names which indicated their relationship to one of the three fundamental modes, the other were eliminated.²¹

The extra-diatonic elements, doubtless infiltrations from the Orient, underwent concurrently this same process of reduction, translation, and assimilation by the indigenous Greek art after a relatively brief popularity.

The whole enharmonic species, bizarre as it was, had a great popularity in the fifth century. It occupied the full attention of the theorists; it is the base of the system of notation; it contaminated the other two species which frequently borrowed its final lowest interval. In revenge, in the fifth century, it fell into discredit as rapid as it was profound. In the epoch of Aristoxenus, about 300, upon hearing an enharmonic melody some amateurs "vomited bile."²²

The enharmonic genus, although having disappeared from the actual music, nevertheless received attention as a historical fact from the later Greek theorists and writers. This has been a source of some confusion to the present understanding of the ancient music.

Rejected henceforth from musical practice, nevertheless for several centuries the enharmonic continues to linger in teaching and theory. It had a factitious existence which has given to moderns a false impression about its real importance.²³

The tendency toward depuration progressed through the elimination, in the fourth century, of the Lydian and the Hypolydian,²⁴ to such an extreme that certain theorists contemporary with Aristotle, admitted only the Dorian and Phrygian, holding that the others were merely modifications.²⁵

The chromatic genus was gradually discarded and Ptolemy (second century A.D.) lists the following scales as being the only ones in use at that time:²⁶

¹⁸ ἡγεμόν.

¹⁹ Reinach, *op. cit.*, p. 40.

²⁰ *Ibid.*, p. 42.

²¹ *Ibid.*, pp. 36-37.

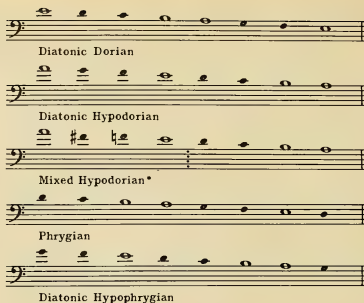
²² *Ibid.*, p. 18.

²³ *Ibid.*

²⁴ *Ibid.*, p. 37.

²⁵ *Ibid.*, p. 37-38.

²⁶ *Ibid.*, p. 38-39.



*Note that this tetrachord is the only survivor of the Chromatic genus.

Since we have now arrived at the point where the history of Christian Church music begins and Greek music yields its leadership to Rome, perhaps it is well to survey the Greek scale system in the light of its legacy to the succeeding period.

Beginning with a single native diatonic species, the Dorian, Greek music in its long history was subjected to a variety of exotic influences: other modes, different tunings, the Chromatic and Enharmonic genera. There were two discernible periods of modal eclecticism but the foreign elements were eventually assimilated: (1) long before the greatest art period the several new modes (Phrygian, Lydian, Iastian, etc.) had become part of a Greek system through readjusting the intonation of the alien scales to that of the Dorian; (2) after the close of the Golden Age the predilection for diatonism finally prevailed and the bizarre genera (Chromatic, Enharmonic, etc.) disappeared. The cycle from diatonism to diatonism was complete.

The contributions of Greece to Christian civilization in the realm of scales may be partly summarized as follows:

- a.) A system of seven-tone diatonic scales or modes based on tetrachords.
- b.) An emphasis on the fourth as a fundamental interval.
- c.) A conception of certain internal tonal functions, which, however vague, must have been analogous to our tonic and dominant.
- d.) A theory of transposition.

Chapter XVIII

THE ECCLESIASTICAL MODES

EVERY CHARACTERISTIC of the music of the early Christian Church shows Hellenic influence. The scale system is a modified adaptation of the Greek system: the names of the scales are the same, although with changed correspondence. The internal tonal functions show the result of considerable evolution, but the source of each characteristic is clearly discernible in the older system.

But if these changes are well understood, the exact steps in the process are not. For in spite of the establishment of the Schola Cantorum in Rome in the sixth century, there were no writers from the fourth century to the ninth to record the steps in the growth of the new system. Unfortunately, the works of Boethius (*ca.* 475-524), Cassiodorus (*ca.* 485-580), and Martianus Capella deal only with Ancient Greek music. For this reason, the highly organized modes of the ninth century present several riddles, the answers to which must be sought in the body of music remaining from the formative period.

In addition to the scales used in his time, Ptolemy (*fl.* 140-160 A.D.) also listed seven octave species, which, by reason of the changing *Mese*, must be regarded as having the greatest significance for the subsequent modal system.¹

	SPECIES	MESE
1. Mixolydian	A—a	d
2. Lydian	G—g	c
3. Phrygian	F—f	b
4. Dorian	E—e	a
5. Hypolydian	D—d	G
6. Hypophrygian	C—c	F
7. Hypodorian	B—b	E

It is not clear whether this was an invention of Ptolemy or whether it represented a tabulation of an existing practice. In either case, his work seems to be the connecting link between the Greek scales and the ecclesiastical modes. The latter were described in the writings of Notker (d. 912), Hucbald (*ca.* 840-930), and "Pseudo-Hucbald" but must have been several centuries old at that time. That these modes were formulated at least as early as the sixth century does not appear too unlikely in view of the practice of the plain song dating from that time and even earlier.

Besides the system of enumeration which used Greek names, there were two others.

	RANGE	DOMINANT	FINAL	
Dorian	D-d	a	D	1st, or 1st Authentic
Hypodorian	A-a	f	D	2nd, or 1st Plagal
Phrygian	E-e	b*	E	3rd, or 2nd Authentic
Hypophrygian	B-b	a	E	4th, or 2nd Plagal
Lydian	F-f	c	F	5th, or 3rd Authentic
Hypolydian	C-c	a	F	6th, or 3rd Plagal
Mixolydian	G-g	d	G	7th, or 4th Authentic
Hypomixolydian	D-d	c	G	8th, or 4th Plagal

*Inter c

It will be noted that the correspondence between the Greek names and the octave species has been altered.² How this came about is not thoroughly understood, but there are some shrewd conjectures.

One point of confusion may have arisen by misinterpretation of the Greek terms *ὑπέρ* (over) and *ὑπό* (under) which were used in an inverted sense to our point of view. Thus, by starting on the *ὑπέρ* mode, Hypodorian, and proceeding to the *ὑπό* mode, Mixolydian, the result is just the inverse of our interpretation of the same instructions:

¹Note that the Dorian (E-e) is the only one which exactly corresponds to the Greek modes; the others not only differ by reason of the shifting *Mese* but also by the inverted order of

the names. cf. the index, page 156.

²Compare the scales of Ptolemy (p. 162) and those of Aristoxenus (p. 156).

	GREEK		ECCLESIASTICAL	
		Hypodoriana-a	(over)
(ὑπό)	b-b	Mixolydiang-g	
	c-c	Lydianf-f	
↑	d-d	Phrygiane-e	
	e-e	Doriand-d	
	f-f	Hypolydianc-c	
(ὑπέρ)	g-g	Hypophrygianb-b	(under)
	a-a	Hypodorian		

W. S. Rockstro says the new nomenclature came about through the usual practice of adding a *Proslambanomenos*, or disjunct note below the limits of each mode. This was applied to the Ptolemy list;³ the *Proslambanomenos* gradually came to be regarded as the fundamental of the scale and the evolution of the ecclesiastical names was complete.

... Thus the Dorian mode is found to have its seat as ever in the octave from E upwards, with *a* as its Mese or Dominant; but it now descends to D. Similarly the Phrygian has *b* for its dominant and E for its lowest note; while the Lydian has *c* and F, the Mixolydian *d* and G.⁴

Matters of far greater importance are the definite Dominants and Finals. These had become fixed, their functions were well understood and, as a consequence, the eight scales were modes in the modern sense of the word. It is not too much to claim that a new phenomenon had appeared in music; *tonality*. Although "... The modern principle (subject, however, to exception) which requires that the final cadence take place on the tonic was stated for the first time by Guido d'Arezzo"⁵ (ca. 990-1050), it is evident from the music that this had been operative for at least four centuries. In ascribing tonality to the old modes, due notice must be taken of the ambiguity of the term. Too often modern theory has used the terms *tonal* and *tonality* as opposites of *modal* and *modality*. Violations of major-minor convention (such as the melodic 7^b-I or the harmonic V-IV) are commonly dubbed modal and are said to weaken the tonality. The idea is that modal music possessed no tonality was fostered by this usage and the misconception that tonality is a unique attribute of the major-minor system has been general. For a full discussion of this matter see chapter ii.

The eight modes were really four pairs, each pair having a common tonic or tonality of D, E, F, or G. The principle of the Final was firmly established in practice as well as in theory and, to a somewhat lesser extent, so was that of the Dominant of the Authentic modes. In the Plagal modes, the Dominants were more theoretical than practical, especially in multiple-voice writing. Quite evidently a device of theory to include melodies of lower ambit within the four tonalities (D, E, F, and G), the Plagal forms became difficult to distinguish from the Authentics after the introduction of organum and Polyphony. Notwithstanding the different Dominants, the distinction between the Authentic and its Plagal was not based on any essential difference of tonal function, but merely on melodic range.

One must bear in mind that the Ecclesiastical modes, unlike the modern scales where the function is to determine the harmony, had instead as their function only to specify the compass of the melody; they marked the boundaries within which the voice could move.⁶

Despite the artificiality of the distinction after the rise of polyphony, and despite the little significance attached to the differences in the dominants between the Plagals and their respective Authentics, the Plagal system continued to occupy its place in theory.

There is a persistent tradition that Charlemagne increased the number of modes to twelve but this seems to have little foundation. Emmanuel⁷ says that the mode on A was used as early as the thirteenth century and it had existed long before that in its transposed form.



³ See above page 162.

⁴ W. S. Rockstro, "Modes Ecclesiastical" in *Grove's Dictionary of Music and Musicians* (3d. ed.), III, p. 476.

⁶ Reinach, *La Musique Grecque*, p. 44.

⁵ Charles Nef, *Histoire de la Musique* (Paris, Payot, 1931).

p. 39.

⁷ Emmanuel, *Histoire de la Langue Musicale*, I, p. 286.

A more extravagant claim is that "Kodex 169 of the City Library of Leipzig dating from 900 A.D. proves a contemporary familiarity with twelve modes."⁸

Glareanus,⁹ in his famous work, the *Dodecachordon*, not only proved the existence of the mode on A, but also established that the C mode was in use. In each case he quoted music from the preceding centuries to bear out his contentions and supplied the new modes with names from the Greek. He reasoned that upon each of the seven notes of the diatonic series, *c, d, e, f, g, a, b*, a scale may be erected without accidentals. If the Authentic division of each octave is a fifth plus a fourth (*c-g-c, d-a-d*, etc.), the order may be reversed to a fourth plus a fifth (*g-c-g, a-d-a*, etc.), forming seven accessory or Plagal modes. The total number is now fourteen. Two of the fourteen, the Authentic *b-f-b* and the Plagal *f-b-f* were considered defective because of the diminished fifth *b-f* and the tritone *f-b* and so were discarded. This brought the system to its complete form of twelve practical modes plus two defective ones.

Thus to the eight original ecclesiastical modes must be added the new:

Original Modes				
AUTHENTIC		PLAGAL		
I	Dorian:	d-a-d	II Hypodorian:	a-d-a
III	Phrygian:	e-b-e	IV Hypophrygian:	b-e-b
V	Lydian:	f-c-f	VI Hypolydian:	c-f-c
VII	Mixolydian:	g-d-g	VIII Hypomixolydian:	d-g-d
Glareanus' Additions				
	Aeolian:	a-c-a	Hypoaolian:	e-a-e
	Locrian*:	b-f-b	Hypolocrian*	f-b-f
	Ionian:	c-g-c	Hypoionian:	g-c-g

*Defective modes.

Glareanus argued that the Ionian was very agreeable, that it already existed in practice, and that it was discriminated against instead of being frankly admitted. "The Ionian, the most common mode, has been banished in our time."¹⁰

This mode is most suitable for dancing: we found it most frequently used in the European regions that we visited. You would find this mode very rarely in the works of the old Church composers. But, in my opinion, for the past four hundred years, it has been so cherished by the Church singers, that, tempted by its sweetness and charm, they have changed many Lydian songs over to this mode.¹¹

This mutation of the Lydian by adding *b* to form the Ionian was one of the abuses practiced by church singers. Glareanus disapproved the habit and called it "distortion" (*torquere*). His great contribution was that he brought theory up to practice in the cases of the Aeolian and Ionian modes and so established their respectability.

The single chromatic element which appears in the early period of Church music is the *b-rotundum*, or *b*[♭]. This was used in two ways: (1) as an accidental¹² to avoid the tritone and (2) in the signature to transpose a mode up a fourth. Apparently this was a direct influence of the *b*[♭] in the Greek Perfect System. The use of *b*[♭] as an accidental would, of course, have the effect of changing the mode. For instance, a flat introduced before the *b* of the Lydian would, as has been said, change the mode to the Ionian. It is true that the early theorists did not take this view of the matter but the fact must stand in spite of their disagreement. This may partially account for the rare employment of the Lydian which, because of the tritone *f-b*, frequently used the *b*[♭] and so became identical with the hated mode of secular music: the mode on C (*modus lascivius*).

⁸ Ruth Hannas, "The Evolution of Harmonic Consciousness" (Ph.D. Thesis, University of Rochester, 1934), p. 47.

⁹ Henricus Glareanus, ΔΔΔΕΛΛΑΧΟΡΑΟΝ.

¹⁰ Note Glareanus' statement that the Ionian is the first of the

series. This was also the opinion of Gioseffo Zarlino in his *Istitutioni armoniche* (1558).

¹¹ Glareanus, *op. cit.*

¹² *Signum asininum*, or asses' mark.

sce il mio co - - - re

i - - - sce il mio co - re

Hor gio -

Even as late as the beginning of the eighteenth century, music may be found in which the concept is partly modal and partly major-minor.

Telemann, *Fuge*.¹⁹

¹⁹ Georg Philipp Telemann, No. 17 of 20 *Kleine Fugen* (1731).



This outline of the history of the ecclesiastical scales has dealt briefly with the more important facts. The Church modes had their prototype in those of Greece although the two systems were not identical. The eight scales of the early Church, four Authentic and four Plagal, later became twelve, with six in each category. They possessed true modality and tonality by virtue of their fixed Finals and Dominants. Chromaticism, at first permitted as a license to ameliorate certain internal difficulties, began to be extended and the purity of the modes was thereby compromised. Eventually excessive employment of chromaticism led to deterioration of the modes and as will be shown in a later chapter, to the reestablishment of diatonism in another and more circumscribed form: major and minor tonality. Subsequent events have shown, however, that this apparent eclipse of the whole system by its most prominent member (the Major) was but temporary.

Chapter XIX

THE SCALES OF FOLK SONG

FOLK MUSIC is generally conceded to be of great antiquity. Certainly the first music could not have been an "art" product. The archeological remains of many primitive peoples include some musical instruments and indicate how early was the urge for music. These relics give only a hint as to what the music was like, since there is little doubt that the human voice also played its part, but with what musical effect we can merely conjecture.

It is not clear where "art music", as distinct from "folk music," began. The sources of Greek music were certainly of the latter category; but all the music remaining from that period seems to be an art product. The same is true of early Christian music. There are various hints of a vigorous secular musical activity paralleling that of the Church. There must have been considerable mutual influence since Church composers frankly borrowed folk melodies for the *canti firmi* of their masses, or included them in their motets. Little more can be said concerning the age of that great body of folk music handed down to us by a rote method which a high school student so aptly described as "from lip to ear." It does not seem likely that the substance of a good tune, any more than that of a good story, should ever be lost.

There are those who claim that the original scales of folk song were pentatonic, and who believe that the diatonic scales arose through the addition of two tones in the "gaps."

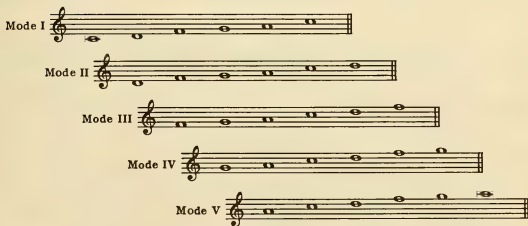
There is of course no doubt of the relative universality of the Western diatonic scale. Modern musical science also accepts to the same extent the historic universality of the pentatonic scale which may be found in the past or present musical practice of almost every country . . .¹

Duhamel² discusses Bourgault-Ducoudray's hypothesis that the diatonic modes were the property of the Aryan race³ and says that the pentatonic scale is common to most of the world. He adds that the gaps were filled in and so gave rise to the seven-tone diatonic modes.

Nearly all the pentatonic scales have been filled in, and the nations who use them are familiar with other notes besides the curious and characteristic formula of five; but in the background of their musical feeling the original foundation of their system remains intact.⁴

These pentatonic scales have been conveniently tabulated as follows.⁵

Pentatonic (or Gapped) Scales



¹ Joseph Yasser, *A Theory of Evolving Tonality* (New York, Library of Musicology, 1932), p. 335.

² Maurice Duhamel, *Les 15 Modes de la Musique Bretonne* (Paris, Rouart, Lerolle et Cie., 1911), pp. 50-56.

³ The difficulty of defining "Aryan race" throws grave doubts

on the value of such a thesis.

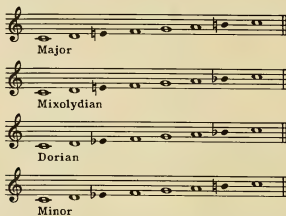
⁴ Annie G. Gilchrist, "Note on the Modal System of Gaelic Tunes," *Journal of the Folk-Song Society*, (Dec., 1911) pp. 152-53.

⁵ *Ibid.*, pp. 150-153.

Most of the melodies in the Frances Tolmie Collection⁶ are pentatonic and seem primitive. To give some idea of the comparative frequencies of these scales, this collection has been classified as follows. (Six- and seven-tone scales are omitted.)

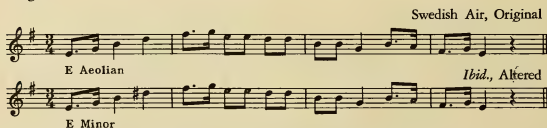
Mode I	2
Mode II	5
Mode III	7
Mode IV	7
Mode V	1

It is impossible to relate any of these scales to a particular seven-tone mode, since either of the two "gaps" of the five-tone series, if filled in, might have two forms (^a or ^b). Pentatonic Mode I might conceivably become any of the following:



The same holds true for hexatonic scales. These are less common and probably represent an intermediate stage between the pentatonic and the septatonic.

Although some forms are very rare, the seven-tone diatonic scales of folk song exactly correspond to the ecclesiastical modes but without the theoretical dominants, etc. There are some folk melodies in the Minor mode with leading tone but these are usually regarded as having been altered from the original Dorian and Aeolian by "trained" musicians, or else adopted by folk singers from composed literature. Fortlage⁷ quotes a Swedish melody which has been changed from Aeolian to Minor by altering the seventh degree.



Oettingen⁸ discusses the same matter and tells how strongly the Esthonians resist such mutilations of their songs: they sing the minor seventh even when the leading tone is played by an accompanying organ!⁹ Much notice has been taken of the preference certain peoples have shown for traditional modal versions over those in which modifications are introduced for reconciliation with Major-minor practice.

Mr. Curwin, in reference to the ecclesiastical Doric . . . says: "In Wales, both North and South, this mode is much preferred to the *Lab* mode, the modern minor mode, and popular tunes printed in one mode are sung in the other."¹⁰

⁶ "Frances Tolmie Collection", *Journal of the Folk-Song Society* (Dec., 1911).

⁷ Karl Fortlage, *Das Musikalische System der Griechen in seiner Urgestalt* (Leipzig, 1847), p. 130.

⁸ Dr. Artur von Oettingen, *Harmoniesystem in dualer Ent-*

wicklung (Leipzig, 1866), pp. 97-98.

⁹ *Ibid.*, p. 113.

¹⁰ H. Helmholtz, *Sensations of Tone as a Physiological Basis for the Theory of Music*, trans. Alexander J. Ellis (London, Longmans, Green, and Co., 1875), p. 441.

Someone rearranged the Gaelic church service hymns, raising the sevenths, to make them "modern." But when it came to practice, the discord that resulted between the few who could sing the raised seventh and the many who could not, made them quickly return to the old way.¹¹

Even if it be true that the major seventh degree in Minor is not natural to Western European folk music, it is often impossible to distinguish altered Dorian and Aeolian folk songs from art songs adopted bodily into folk literature.¹² Then there is the question of whether or not the Dorian, Aeolian, Phrygian, etc., modes were adopted into secular music from the Church. It is conceivable that through a process of synthesis the two scale systems, ecclesiastical and Pentatonic, being congruent, could have combined to form a more comprehensive and dynamic set of folk scales.

In British folk-music the Dorian is on the whole the commonest of the old modes; the Mixolydian and Aeolian come next (though in England the latter is considerably less frequently met with than the other two), the Phrygian is distinctly rare, and the Lydian is almost unknown. Sometimes, however, the tonalities become confused (a Mixolydian scale with an occasionally flattened third is fairly often noticeable) or the same melody is found in different modes, as well as, perhaps, in the ordinary major scale also; the minor scale is by no means common.¹³

In one study of old English popular music it was found that . . . out of 118 tunes, there are: 44 Dorian, 19 Mixolydian, 12 Aeolian, making 75 together. Most of the other 43 are major.¹⁴

The following tabulation of the folk songs which appeared in the *Journal of the Folk-Song Society* from 1899 to 1931 should give some idea of mode frequencies. Omitted from the count were: (a) melodies foreign to the British Isles, (b) the revival hymn tunes in Volume VIII, (c) melodies obviously from such works as the *Beggar's Opera*, and (d) sailors songs which show too much music-hall influence. Under the heading *Doubtful* are included pentatonic and hexatonic tunes (usually street cries), and melodies of mixed mode, i.e., changing mode. Never is there an interval of an augmented second.

TABULATION OF MODAL FREQUENCIES
IN ENGLISH FOLK SONGS
Data from the *Journal of the Folk-Song Society*, London,

Years	Vol.	Major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian	Minor	Doubtful
1899-1904	I	108	23	1	0	22	14	0	2	6
1905-1906	II	140	40	1	0	28	46	0	4	22
1907-1909	III	59	41	1	0	23	36	0	7	25
1910-1911	IV	47	12	0	1a	5	13	0	3	6
1914-1916	V	131	20	0	0	25	24	0	3	39
1918-1921	VI	84	5	0	2b	10	16	1c	1	19
1922-1926	VII	89	33	0	0	15	28	0	9	69
1927-1931	VIII	77	26	0	0	17	26	0	3	37
Total		635	200	3	3	145	203	1	32	223
Percentage		44	14	0.2	0.2	10	14	—	2	15

a. (1911), p. 10.

b. *Ibid.* (1918), p. 191; (1921), p. 246.

c. *Ibid.* (1918), p. 10.

¹¹ Helen Hopekirk, *Seventy Scottish Songs* (Boston, Oliver Ditson Co., 1905), p. vii.

¹² In view of this fact no attempt has been made to "restore" the one or to eliminate the other in the frequency tabulation of the modes of folk music. The reader is simply advised to bear in mind that whether or not he believes the Minor scale with major seventh is intrinsic to folk lore, any group of folk melodies using this scale is likely to contain examples of al-

tered folk tunes and adopted art songs.

¹³ Ernest Walker, *A History of Music in England* (London, Oxford University Press, 1924), p. 315. The statement about the frequency of the Aeolian is not borne out by the table on p. 171, below.

¹⁴ E. F. Jacques, "Modal Survivals in Folk-Song," *Journal of the Folk-Song Society* (1899), p. 6.

In France there exists no such large collection for purposes of comparison. From such a small group as that gathered by D'Indy and Tiersot deductions are not valid, but nevertheless there seems to be some indication that a broad survey might reveal a great difference in the modal percentages between French and English folk song. A tabulation of modal frequencies in French folk songs¹⁶ shows:

Major	Aeolian	Phrygian	Dorian	Doubtful ¹⁸
8	8	3	2	13

Spanish folk music makes use of most of the modes. The Phrygian cadence is especially prominent in Castile and Andalusia. In the latter province there is some Moroccan influence and the cadence is altered from *a, g[♯], f[♯], e* to *a, g[♯], f[♯], e*.

... The modes found in Galician popular song include Dorian, Phrygian, Mixolydian, and Aeolian (D, E, G and A modes) in their authentic and plagal forms. Among twenty or more *Alalas* in the collection of the Archaeological Society of Pontevedra, 5 are Hypodorian, 5 Mixolydian, 4 Hypophrygian, 4 Lydian, 5 Mixolydian, 4 Hypophrygian, 4 Lydian, 1 Phrygian and 1 Hypomixolydian. Another characteristic of Galician tunes is the resemblance of some of them to Gregorian melodies, not only in the mode, but also in melodic formula and cadence. The difference is rhythmical, not melodic.¹⁷

... A constant feature of southern Spanish folk-music (and of the works of Granados and Albéniz) is the recurrence of the fourth mode 'Phrygian' cadence, with its drop of a semitone to the final.¹⁸

The folk songs of Italy have so long been under the influence of art music that it is no longer possible to estimate their modal frequencies. The diatonic modes seem to have been employed, since a few Lydian tunes have been found, and, especially at Naples, the Phrygian feeling is strong even today.

The *Volkslieder* and the songs of the Minnesingers and Meistersingers were originally founded on the diatonic modes but the Major and Minor modes did not begin to make their appearance until the fifteenth century. In Bohemian folk song the Major mode predominates, although there are many modal tunes. On the other hand, the folk songs of Moravia are about equally divided between the diatonic modes and the Major. Although exotic influences are seen in Magyar music, Hungarian folk song shows some instances of Dorian and Phrygian. The augmented second is not so frequently found as is generally supposed. Many old Finnish songs have a range of but a fifth; others exhibit a complete modal scale. Scandinavian music has a peculiar feature in that the melodies often begin in the Minor mode and end in the Major, or vice versa. Many songs, however, make use of other diatonic scales, especially the Mixolydian and Phrygian. Iceland has been untouched by art-music influences of the past three centuries and consequently retains the original scale forms. All the diatonic modes are found, but the Lydian is preferred.

To such a degree does the Lydian mode determine the character of Icelandic melodies that it may be regarded as a valid mark of the genuine Icelandic. Even today the Lydian scale still turns up so often that one almost feels that it might be called the Icelandic mode. Nearly all melodies which were characteristically sung as twinsongs [*tuviðngur*: two parts sung in parallel fifths], are in this mode. The *diabolus* [tritone], formerly so dreaded, was introduced without hesitation.¹⁹

In most cases where one meets inaccuracies in the collected melodies of Russian folk-songs, these are due either to (1) faulty notation or (2) faulty harmonization because of the compromise that is made between the ancient modes and the modern ones [Major-minor] . . . Folk-songs are marked by their strict adherence to a single modality. Most of the songs are in the four following modes:²⁰ Phrygian, Dorian, Major, and Aeolian.²¹

The most important modes of Jewish music are the Phrygian (*Pentateuch mode*), the Dorian, and Aeolian (both recognized forms of the *Mode of the Prophets*). "This [Mode of the Prophet] is the stand-

¹⁶ Vincent d'Indy, and Julien Tiersot, *Chansons Populaires Recueillies dans le Vivarais et Vercors* (Paris, 1892).

¹⁷ This group includes only songs which have a mode change or which lack a complete scale: none could possibly be classified as belonging to the Minor mode.

¹⁸ J. B. Trend, "Song: Spain and the Basque Country," *Grove's Dictionary of Music and Musicians* (3d ed.), V, pp. 10-11.

¹⁹ *Idem*, "Morales, Cristobal," *Grove's Dictionary of Music*

and Musicians (3d ed.), III, p. 511.

²⁰ Angul Hammerich, "Studien über isländische Musik," in *S.I.M.* (1899-1900), p. 347.

²¹ In the Russian text the Greek nomenclature was used and the list was: Dorian, Phrygian, Lydian, and Locrian.

²² Julius Nicolaevich Melgounov, "On Russian National Music," *Этнографическое Общество* (Moscow, 1890), VI, p. 133-134.

ard scale of Jewish music, not only in the Synagogue song but also in folk-song. Nearly 80 per cent of all Jewish folk-song is based upon it."²²

From the foregoing it is apparent that it would be unsafe to venture more detailed conclusions than the following about the scales in the folk music of Western civilization.

a.) The most primitive scales of which there is any knowledge are the Pentatonic.

b.) Apparently the septatonic scales came later and may be regarded (1) as developments of the Pentatonic by filling in the larger intervals or (2) as adaptations from the Church which could be readily articulated with the five-tone scales through a process of confluence.

c.) All the diatonic modes, with the possible exception of the Locrian, are well established in folk music. (The latter, however, is not unknown as was shown above, chap. xiv.)

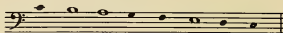
d.) The Minor mode with leading tone is found in folk song, although its presence there may denote an art influence.

²² A. Z. Idelsohn, *Jewish Music in its Historical Development* (New York, Henry Holt and Co., 1929), p. 50.

Chapter XX

GENESIS AND GROWTH OF THE MAJOR-MINOR SYSTEM

LIKE THE Ionian, the modern Major scale is a *C-c* type. The only scale in Greek music to which it bears any resemblance is the ancient Lydian; this similarity is very superficial, since the *Mese*, *a*, had great influence and the *final* is uncertain (see chap. xvii):



(music example)

The differences between ancient and modern tuning would also preclude any but a slight correspondence.

Of the original eight ecclesiastical modes, not one can be said to resemble the modern Major. The only one of the *C-c* type is the Hypolydian, but its *final* is *F* and its dominant is *a*. When, however, *b^b* was introduced into the Lydian for the purpose of avoiding the tritone, the resultant type, *C-c*, gave Glareanus grounds for his thesis: the existence in practice of the Ionian. This scale Glareanus divides at the fifth, which, but for Pythagorean tuning, gives the same diatonic form as the Major.

Gerbert quotes a passage from the late thirteenth-century work, *Lucidarium musicae planae*, by Marchettus of Padua, which seems to prove that the Lydian had even then degenerated into the Ionian. "With any kind of ascending cadence into the fifth above, the utterance of such notes is more agreeable and sweeter to the ear, and is more adapted to singing."¹

The hexachordal system invented by Guido seems to point to *C-c* type influence which would place Ionian existence as early as the eleventh century. Taken together, the two upper hexachords form a *C-c* type scale of an octave and a third. Since the *B* (*fa*) of the lowest hexachord is *B^b* (*B-molle*), the *C-c* type scale is again formed by the two adjoining hexachords.

Guido's Hexachord System



In his *Musicalisches Lexicon* (1732), Walther gives a list of Lutheran hymns classified by mode in which there are no Lydian examples. He says that, according to Raselius (d. 1602) and Snegassius, the Lydian degenerated into the Ionian "183 years ago."²

Nor was the Lydian the only old mode to yield to the Ionian. Glareanus records that the "Mixolydian mode was in the greatest use by the old Church composers, but in our time is almost unknown."³

The alterations permitted under the rules of *Musica Ficta* tended to convert the Mixolydian to the Ionian by the use of *f* in the cadence. The process was not limited to the Lydian and Mixolydian; the minor modes coalesced to form but one composite minor.

¹ Martin Gerbert von Hornau, *Scriptores ecclesiastici de musica sacra potissimum* (St. Blaise, 1784), III, pp. 110-111.

² Johann Gottfried Walther, *Musicalisches Lexicon* (Leipzig,

1732), p. 410.

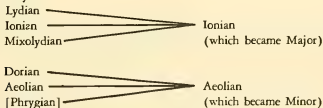
³ Henricus Glareanus, *ΔΔΕΚΑΧΟΡΑΟΝ*, II, p. 133-134.

. . . by the constant substitution of b^b for b (under the laws of *Musica Ficta*), the Dorian and Lydian modes became virtually transposed forms of the Aeolian and Ionian respectively, so that really we have only four modes left instead of six. Moreover, the Mixolydian (G) mode, thanks to the sharpening of the f at the cadence, lost a good deal of its personality, and tended to merge into the Ionian, though its capitulation was not so abject as that of the Lydian, whose b^b actually appeared in the signature.⁴

The sixteenth century Modal System . . . was a compromise, in which all the modes tended to lose their identity, and to merge into two general types, clearly foreshadowing our own major and minor scales.⁵

In the last half of the sixteenth century we see all the old modes dividing themselves into two groups (this observation does not apply to folk-song): some were swallowed up by the Major mode, the others by the Minor mode . . . At the end of the seventeenth century, this simplification was a fact, fixed and definitive.⁶

Thus, graphically:



The Ionian mode was the predominant mode of folk song as was noted by Glareanus (see above, p. 165), and it also must have exerted a strong influence on the prevailing modes and the course of development of art music.

The reason behind the eventual supremacy of the Major mode over the other scales with major thirds (the Lydian and the Mixolydian) is not difficult to deduce. Until a definite physical basis is proved for consonance and tonality, it is useless to try to explain by mathematics why one scale is more natural than another. The preference shown for the Major during the past three centuries may, however, be accounted for on purely musical grounds. The strongest cadence formula is founded on the *Clausula vera*:



Just why this is so is impossible to explain but the fact can hardly be denied. Granting this as established, it immediately becomes clear that the *Clausula vera* cannot be used in connection with the Mixolydian, since this scale has a seventh degree a whole tone below the tonic. The Lydian scale gives the possibility of such a close but its characteristic interval, the tritone, (the augmented fourth between the tonic and the fourth degree) has been avoided as an abhorrent melodic interval since early Christian times. The Major mode is thus the logical choice.

The period from 1500 to 1700 may be called the transition period from the old modes to the establishment of the system we know as major-minor. In Chapter XVII the early existence of the Ionian was discussed, and even after the disappearance of most of the other modes, the conventions which define the classic major-minor system had yet to be evolved and established.

The composers Josquin des Prés, Willaert, Certon, Morales, Cabezón, Andrea Gabrieli, and Palestrina belong to the last period of the old Church modes. Their cadences may be said to resemble those of the major-minor system because of the alterations permitted by *Musica Ficta*. This treatment reduces most of the modes to the Ionian or Aeolian (sometimes Dorian), but the progressions within these two modes did not conform to the conventions of the major-minor system. The same estimate may be made of the works of Sweelinck, Schütz, and Giovanni Gabrieli, but the Ionian influence is even stronger and there are many which sound *Tonal*, witness the following example:

⁴ Morris, *Contrapuntal Technique in the 16th Century*, pp. 13-14.

⁵ *Ibid.*, p. 65.

⁶ Jules Combarieu, "Cours du Collège de France," *La Revue Musicale* (Jan. 1, 1906), p. 16-17.

Ent - setzt euch nicht, ent - setzt euch nicht. Ich weiss,
dass ihr su - chet Je - sum von Na - za - reth, den ge -
Ich weiss, dass ihr su - chet Je - sum von Na - za - reth,
kreu - zig - ten, er ist nicht hie, er ist auf -
den ge-kreu-zig - ten, er ist nicht hie, er ist auf -

(#)3 4 (#)3 # 6 # # #

Byrd (1542-1623) and the other virginalists exhibit a compromise between the old and the new. The music seems principally Ionian with occasional lapses into other modes.

The diatonic system on which this virginal music was based may be said to bridge the gulf between modality and modern tonality . . . but in this transitional, wholly experimental period there was no divorce between the major and the minor, resulting in a freedom from constraint that made for rapid progress.⁷

By Purcell's time (ca. 1658-1695) the major-minor system was fully established in England although infrequent "pseudo-modal" passages can be discovered in *Dido and Aeneas* and *King Arthur*. Especially in some of the final cadences of his Church music does Purcell show that modal feeling had not entirely died. (See above, chap. vi.)

To the early homophonic composers, Peri, Caccini, Cavalieri, and especially to Monteverdi (who is credited with the introduction of the V⁷), must go a large share of the credit for fixing major-minor tonality. It must not be thought that there is no modality in the works of this group. Monteverdi particularly seems able to write in both styles: his Church music belongs to the older order. Viadana and Cavalli must also be given credit for their part in the formation of the new style. The works of Frescobaldi, Froberger, and Buxtehude represent successive steps in the advancement of the Major-minor system. Buxtehude's compositions are almost wholly tonal, with only an occasional modal touch.

⁷ Hilda Andrews, Preface to *My Ladye Nevells Booke*, by William Byrd (London, Curwen and Sons, 1926), p. xxviii.

With the advent of Bach and Händel the transitional, experimental period came to a close: the *Tonal Period* had fully arrived and its conventions were firmly established. The modal traces to be found in Bach are almost invariably due to the use of traditional modal chorale melodies.

It was Rameau⁸ who reduced the new system to theory, but, like Glareanus, he merely put on paper the results of a long period of experiment by many composers. His theories have had great importance for music ever since, although certain hypotheses have been forced to yield to more thorough investigation.

The Major-minor system has continued to develop within its limits and the process, even today, is not yet complete. Beethoven added to the lucid system of Mozart and Haydn. Berlioz, Chopin, Liszt, Wagner, Gounod, Franck, Chabrier, and Strauss each made contributions without violating the spirit of tonality. The course of the Major and Minor scales has been traced by many authors and need not be further discussed in these pages. By the beginning of the past century the novelty of the two scales was gone. The quest for fresh tonal means led composers to experiment with other scales with the result that the wider diatonic horizon reappeared. All during the Romantic period there was an undercurrent of modality and gradually this movement grew in strength and importance until the twentieth century, when the diatonic modes became a powerful factor in the musical resources of almost every composer. The history of this development is the concern of the second part of Book Two.

⁸ Jean-Philippe Rameau, *Traité de l'harmonie* (Paris, Ballard, 1722).

Idem. *Démonstration du principe de l'harmonie* (Paris, 1750).

Chapter XXI

THE MINOR MODE

FROM THE point of view of the diatonic system, the Minor is so irregular that French writers sometimes characterize it as "Mineur bâtard,"¹ but its position is not that of an independent scale so much as it is that of a complement of the Major.

Strange that one should feel major and minor as opposites. They both represent the same face, now more joyous, now more serious; and a mere touch of the brush suffices to turn the one into the other. The passage from either to the other is easy and imperceptible; when it occurs frequently and swiftly, the two begin to shimmer and coalesce indistinguishably.²

It is only necessary to consider the two qualities of the Major and Minor to solve the riddle of their partial correspondence. In the quality of *modality*, they are certainly unlike:



In the matter of tonality, however, they are identical, since the conditions of maintaining that tonality correspond exactly. (See chap. ii.)

It is usually said that the Major imposes its cadence formulae on the Minor, causing the alteration of the latter's seventh degree to the leading tone. Emmanuel says that the modern epoch "*asservit le mineur et lui impose les cadences caractéristiques du régime majeur*"³ and Schönberg agrees that "the minor scale has its particular characteristic less in the minor third than the artificial imitation of the cadence, by means of a half-step, which is found in the major scale."⁴

It is a small point, perhaps, but such a position is not upheld by history. As has been shown above, in Chapter ii and iv, through the practice of *Musica Ficta* the ecclesiastical modes coalesced into two types, one major (Ionian), the other minor (Aeolian). The *Clausula vera* had existed long before the true Major mode appeared and was used as often with the Dorian and Aeolian as with the Ionian and Lydian. It is more accurate to claim that the basic cadential and other conventions definitive of the Tonal Period were developed simultaneously and that the Major and Minor modes are themselves part of these conventions.

Although the form of the Minor which emerged at the end of the evolutionary process was Aeolian, plus the modifications necessary for conformity to the exigencies of *tonal practice*, there was a period of indecision between the Aeolian and the Dorian. Visible evidence of the struggle is the Minor signature of the seventeenth and early eighteenth centuries. Up to and through the Bach-Händel period the "minor keys requiring flats were written with one flat less than are the same key signatures of today."⁵

¹ Emmanuel, *Histoire de la Langue Musicale*, I, p. 5.

² Ferruccio Busoni, *Sketch of a New Esthetic of Music*, trans.

Dr. Th. Baker (New York, G. Schirmer, 1911), p. 27.

³ Emmanuel, *op. cit.*, I, p. 6.

⁴ Arnold Schönberg, "Problems of Harmony," *Modern Music* (May-June, 1934), p. 171.

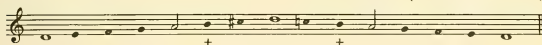
⁵ C. W. Pearce, *Modern Academic Counterpoint* (London, Winthrop Rogers, 1914), p. 16.

D Minor (without the B \flat signature)

Händel's *Acis and Galatea* and Bach's D-minor organ fugue (the so-called Dorian Fugue) may be cited as late examples of this practice, although in some modern editions the original signature has not been preserved.

The Dorian signature for the Minor has given rise to the idea that at some time during the transition from ecclesiastical modal practice to that of the major-minor system the preferred form was a derivative of the Dorian, i.e., it had the characteristic major or "Dorian" sixth degree.

Minor Scale (Melodic-Dorian form)

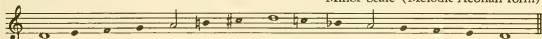


Pearce says, "The minor key-signature of the period subsequent to the time of Bach and Händel—extending to the present day—would seem to suggest some sort of derivation of the modern minor scale from the Aeolian mode."⁶ But that "the original form of the minor scale seems to have been identical with that of the Dorian mode."⁷

The same view is held by Emmanuel⁸ but he makes it clear that the Dorian form had begun to disappear by the sixteenth century.

Sometimes, — and beginning with the sixteenth century it is a general tendency — one lowered by a chromatic semitone the sixth degree of the descending scale in order to agree with the dimorphic minor consecrated by J. S. Bach.⁹

Minor Scale (Melodic-Aeolian form)



In spite of these opinions there seems to be insufficient evidence for concluding that the Dorian was the original form of the modern Minor. The Dorian signature can be explained as deriving from the transposition of the Dorian mode — but, as Glareanus showed, this mode was frequently compromised by lowering the sixth degree, making it actually Aeolian. Research in the music of the fifteenth, sixteenth, and seventeenth centuries fails to reveal a predilection for the Dorian over the Aeolian; indeed, the truth seems to be just the reverse.¹⁰ In view of these facts, we must deduce that for a long time the two modes were both regarded as legitimate and neither was used to the exclusion of the other, although eventually the Aeolian form came to be preferred.

From one point of view the Dorian is still represented in the modern Minor mode. The Melodic scale has a major sixth degree in the ascending form and Pearce is quite justified in referring to it as the "Dorian sixth."¹¹ Thus "our Minor mode appears to be a combination of the Dorian and Aeolian."¹²

The melodic form was used by Bach, Rameau, and Kirnberger,¹³ and also by the virginal composers.

⁶ *Ibid.*, p. 17.

⁷ *Ibid.*, p. 15.

⁸ Emmanuel: *op. cit.*, II, pp. 289-292.

⁹ *Ibid.*, p. 15.

¹⁰ For example, the *Auferstehungs-Historie* by Schütz is written in the Dorian mode on D (no sharps or flats in the signa-

ture) yet the mode is frequently reduced to Aeolian by the use of b \flat .

¹¹ Pearce, *op. cit.*, p. 21.

¹² J. A. P. Spitta, *Bach* (Leipzig, Breitkopf und Härtel, 1880), II, p. 610.

¹³ *Ibid.*



C Minor (Melodic form)
Dorian signature

Among the madrigalists, however, Morris has noted:

Byrd's frank abandonment of both the Dorian and Phrygian modes. His "minor" movements are written, with hardly an exception, in the Aeolian mode, both in its natural and transposed forms (i.e., D with one flat, or G with two flats, which are not left to the tender mercies of *Musica Ficta*, but boldly inserted as a key signature). In this practice he was followed by all the great madrigalists; here and there (as for instance in Morley's "Hark Alle-lulia") you find a piece of deliberate modal writing: but the effect is that of an intentional archaism . . .¹⁴

According to Spitta,¹⁵ Werkmeister, in his *Harmonologia musica* (1702), agreed with Rosenmüller that the Dorian was the better representative of the Minor but later (in his *Musikalische Paradoxal-Discourse*, 1707) changed his position to a preference for the Aeolian. In his *Handschriftliche Musiklehre*, Johann Gottfried Walther taught both forms.¹⁶ Basing his opinion on the music and on the *Clavierbuch Anna M. Bachs* (1725), Spitta declares that Bach recognized only the Aeolian form (meaning the melodic-Aeolian form). In general, Bach's music attests the validity of this conclusion, but he did not consider himself irrevocably bound, because he sometimes chose the Dorian form.

C-Minor

Bach, *Well-tempered Clavier*, Fugue II.



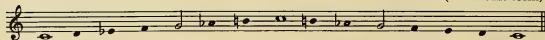
C Minor

Melodic
Aeolian form

Dorian
form

Although it is seldom employed in complete scale form, the customary modern Minor scale preserves the Aeolian minor-sixth degree in spite of the augmented second. This is called the *harmonic form*.

Minor Scale (Harmonic form)



This scale is said to have been invented by Lingke and is described in his *Musikalischen Hauptsätze*.¹⁷ Mizler, in his *Musikalische Bibliothek*,¹⁸ gives an account of how Lingke proposed this scale to the *Musikalischen Wissenschaften* at Leipzig in 1744, and relates that it was approved by the members.

The reasons behind the final triumph of the Aeolian form of the Minor are perhaps too subtle for facile analysis. The comparative blandness of the Dorian with identical tetrachords

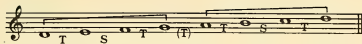
¹⁴ Morris, *op. cit.*, p. 65.

¹⁵ Spitta, *op. cit.*, II, p. 610.

¹⁶ *Ibid.*

¹⁷ P. 16 ff.

¹⁸ Vol. III, p. 360.



as well as its major IV triad may help explain the outcome of the struggle. The Aeolian has more character due to its dissimilar tetrachords,



and offers greater contrast to the Major because of the minor IV triad. If, however, the question had been decided on degree of contrast alone, the Locrian would have been the logical choice since it is the most "minor." Neither the Locrian nor the Phrygian permitted the necessary dominant cadential conventions and for that reason were not available.¹⁹ Another possible reason for the choice of the Aeolian is suggested by Combarieu who says that the chord *a-c-e*, which includes *c*, the tonic of the relative Major, opposes better the chord *c-e-g* than would the relative Dorian *d-f-a*.²⁰ This is especially understandable in the light of *key relationships* for succeeding movements of an integrated work.

¹⁹ There have been some attempts to use the Phrygian as a minor with major-minor V formulae. See above, chap. xv.

²⁰ Combarieu, *op. cit.*, p. 427.

Part II: The Genesis of the Harmonic Modes

Chapter XXII

THE USE OF THE ECCLESIASTICAL MODES

BY BACH AND HÄNDEL

THE THEORIES of the modes of Ancient Greece and of the early Church were formulated by men whose musical outlook was monodic. So long as music consisted of a single melody line or chant, the original theories were adequate, but when plural melody was introduced some modifications were necessary and thus arose the convention of construing the mode of polyphonic music to be that of the *Cantus Firmus*. Such a practice was logical enough so long as the *Cantus Firmus* was kept in the foreground but, as polyphony developed, the *Cantus Firmus* was more and more obscured by the richness of the counterpoint and was eventually to disappear altogether. By the time this happened, Ecclesiastical Modality, as a complete system, had given way to the major-minor system and Tonality. The Tonal period, the period of major-minor dominance, may be said to extend approximately from 1600 to 1900.

It should not be thought that there was no manifestation of the modes during the three centuries: in Western civilization the system of the *Diatonic Modes* (the seven basic types) is the common denominator of all scale systems and has had a significant role in this as in every other musical period. The Major scale and its satellite, the Minor, are but a partial expression of the whole of diatonism and during their ascendancy the complete system of Diatonic Modes made itself felt through *modulation* (see above, Book One, Part II). Besides this evidence of the roundabout influence of the diatonic norm, the modes per se never wholly disappeared, as will be demonstrated in the next chapters. When, after having thoroughly exploited the major-minor scales and modulation, composers began to seek fresh means of expression, the basic Diatonic Modes returned to general favor. This latest manifestation is not a restoration of earlier practice: it is a new facet of the eternal scale system of Western civilization.

Whereas the theory of the modes of the Greeks and the early Christian Church was a monodic concept and that of the Middle Ages and the Renaissance was contrapuntal, the modern usage is *harmonic*. The *Harmonic Modes*, as they may be called, were formed through the conjunction of a number of folk and art influences. Practice derived from superimposing some of the major-minor harmonic techniques on the extra-major-minor diatonic scales. Chapters xxv through xxix trace the development of the *Harmonic Modes* in the several countries during the nineteenth century, and these chapters together with Chapter xxx illustrate the practices which are the technical basis of the modern diatonic style.

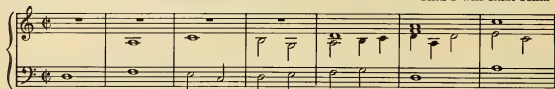
The works of Bach and Händel are usually conceded to be uncompromisingly Tonal and these two masters are considered the first composers whose writings entirely conform to the conventions associated with the major-minor system. That this was a conscious choice on their part can hardly be doubted, since not only must they have been thoroughly grounded in modal theory but they were also acquainted with the modal music of their predecessors.

In Händel's work we find very little trace of any modal influence. There are occasional rather abrupt and surprising harmonies in the recitatives, but the effect is hardly modal. Perhaps such progressions were dictated by the exigencies of the particular dramatic inflection desired by the composer. There are, however, a few instances which cannot be so readily dismissed.

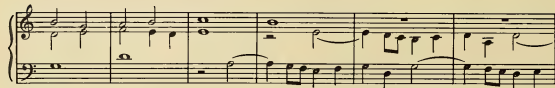
Händel never wrote pieces which are wholly modal: the harmony always reverts to conventional practice somewhere in the course of the work. Such regressions are usually introduced to effect an emphatic cadence or an unmistakable modulation. These characteristics, it may be added, are found in

the music of many a later composer whose habits of thought were major-minor but who wished to avail himself of the kaleidoscopic harmonic palette of modality. The following excerpts are illustrative.

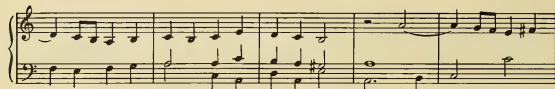
Händel, *Israel in Egypt*,
"And I will exalt Him."



D Dorian



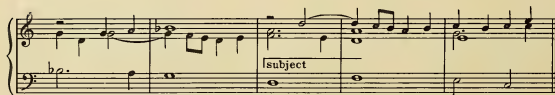
(Dorian)



[A Aeolian]

A Minor

G Minor

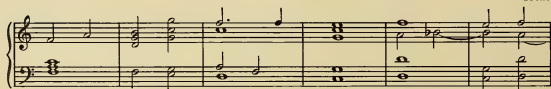


[D Aeolian IV?]

D Dorian

The treatment which follows the excerpt is conventional and modulatory. After passing through several keys (A-Minor, G-Minor, F_♯), there occurs a return to D-Dorian for a few measures before another digression which leads to a conventional final cadence.

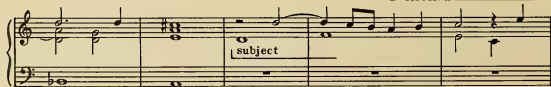
Ibid.



C 16

II

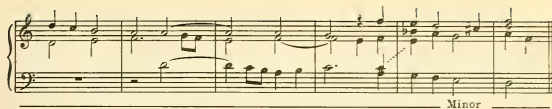
D Aeolian



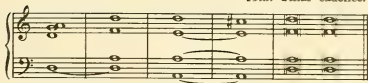
Minor
V

I

Dorian



Ibid. Final cadence.



The use of a long pedal over which chromatics are introduced sometimes produces a modal effect. In the Air "Sin not, O King" from *Saul*, Händel probably considered the e^{\flat} in the fifth measure as a modulation to B^{\flat} but the impression it gives at first is Mixolydian.

Händel, *Saul*,
"Sin not, O King."



Although the chorus "Egypt was glad" from the same work ends on E-tonic and appears to begin E-Phrygian, there is a curious inconclusiveness about the tonality owing to the constantly recurring e-major triad followed by an e-minor one. The impression of ambiguity, intended or not, should not be credited to Händel, since this is a famous case of plagiarism: the piece is actually a canzona composed by Johann Casper Krell (1627-1693) which Händel appropriated.

No particular importance is attached to the fact that both Bach and Händel sometimes used the Dorian signature for their minor movements because, as was shown, this had little significance: the sixth degree was usually chromatically altered to make the scale agree with the Aeolian form. Bach, however, employed the ecclesiastical modes more often and more frankly than did Händel, especially in the chorales, and because of this his signatures are more varied.

Likewise one can understand Bach's connection with the Church modes through his manner of using key signatures. Thus he consistently wrote E-Dorian with two sharps, F-Dorian with three flats, G-Dorian with one flat, and avoided any signature at all for the Dorian, Phrygian, and Mixolydian when used in the original [white-note] form.¹

According to Spitta, Bach made constant use of his knowledge of the ecclesiastical modes.

He extracted from the Church modes all that wealth of modulation which they are so capable of offering, and he knew further how to use the resources so well that he subordinated the modes to the more simple radical feeling of the Major and minor modes.²

This statement is difficult to check because if, as Spitta says, Bach subordinated the modes to the more simple radical feeling of the Major and Minor, he was so successful that the music gives no suggestion of modal thinking as a mental process of the composer. The advantages of the broader outlook afforded by an understanding of the whole diatonic modal system are apparent, but it is hazardous to delve into the intellectual processes of any composer when these are not perfectly manifest in his product. Conceivably Bach's genius could have availed itself of the modulatory resources which his music exhibits through orthodox major-minor harmonic procedures. It is not necessary to resort to a modal explanation to account for his key changes, and since proof is lacking, we are justified in concluding that in this case Spitta was perhaps carried away by his own zeal. Discernible in the music, however, is a certain broad understanding of, and searching penetration into, the problem of harmony. So far does Bach surpass his predecessors and contemporaries in this respect that his harmonic conceptions seem transcendent. It may well be, as Spitta says, that a thorough familiarity with the ecclesiastical modes was contributory.

... Bach's inexhaustible harmonic richness, which is exhibited in all his compositions and certainly without overmuch modulation, arises from two sources: from a most thorough utilization of the octave-species and from an exceedingly sharp and assured feeling for the relationships inherent in the Major-minor system.³

According to his pupil Kittel, Bach used a mixed style in harmonizing the chorale melodies.⁴ Apparently this means using major-minor formulae with modal tunes by resorting to modulation to lessen or avoid the effect of the characteristic degree of a particular mode. For instance, the following melody is Lydian at the beginning but Bach has taken advantage of the Lydian fourth to modulate to the dominant key, thus diminishing if not entirely obliterating the effect of the tritone.

Bach, "Freuet euch, ihr Christen."⁵



¹ J. A. P. Spitta, *J. S. Bach* (Leipzig, Breitkopf und Härtel, 1880), II, p. 614.

² *Ibid.*, II, p. 611.

³ *Ibid.*, II, p. 613.

⁴ Johann Christian Kittel, *Der angehende praktische Organist* (3d ed., Erfurt, 1831), p. 37ff.

⁵ The original key is G.

By means of similar devices almost any modal melody may be subjected to conventional harmony. The following is E-Phrygian melodically but harmonically Bach has treated it as A-Minor and ends on a half cadence.

Bach, "Aus tiefer Noth schrei ich."

Analogous methods have been applied to the harmonization of a number of chorales in several modes. The accompanying list gives the names of chorales which exhibit the "mixed" style.

Phrygian

"A hilf, Christe, Gottes Sohn."

"Mitten wir im Leben sind."

"Es woll' uns Gott genädig senn."

"Christum wir sollen loben schon."

"Erbarm dich mein, o Herre Gott."

Dorian

"Das alte Jahr vergangen ist."

"Erschienen ist der herrlich Tag."

Mixolydian

"Gott sei gelobet und gebenedeiet."

"Nun preiset alle Gottes Barmherzigkeit."

Not always does Bach choose to follow the strict major-minor conventions. The soprano melody of *"Komm Gott Schöpfer, heiliger Geist,"* if considered separately, is clearly Mixolydian and the harmonization gives a modal impression up to the first cadence when suddenly C-Major is established. The final cadence then sounds like a half-cadence. On the second stanza the first measures will be heard as C but the effect is pseudo-modal because of the emphasis on the secondary triads and the progressions V to IV and VI to V.

Bach, "Komm Gott Schöpfer, heiliger Geist."

G Mixolydian I VII IV V VI IV II C V7
 C Major V IV I II III I VI V7 I

C I V

On the other hand, Bach sometimes reversed the procedure by introducing modal touches into an otherwise wholly conventional chorale. Although there are modulations to C- and D-Major, "Gelobet seist du, Jesu Christ" ends with a G-Mixolydian final phrase which is somewhat akin to a codetta. (The Mixolydian in the final cadence is fully treated in chap. vi.)

Bach, "Gelobet seist du, Jesu Christ."

G Major C Major G

D Major G Major

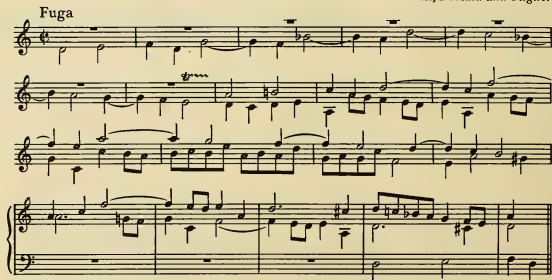


Lydian Mixolydian

Often cited as an example of the use of the Dorian mode by Bach is the fugue from the *Toccata and Fugue* for organ. This is called the "Dorian Fugue" but the reason is obscure. The explanation is probably founded on the Dorian signature but this is insufficient because the practice of using that signature for the Minor was still in use at that time. Bach's contemporaries and immediate predecessors regularly supplied the accidental to lower the sixth degree of the Minor instead of placing it in the signature.

It would be more nearly accurate to call it the "Aeolian Fugue" because during the course of the subject and answer the leading tone (C[#]) is avoided and the most prominent form of the scale is the Aeolian. The construction of the subject is remarkable and although it may have been done designedly, the remainder of the work is strictly conventional and shows no evidence of capitalizing the idea.

Bach, *Toccata and Fugue*.



From the foregoing evidence we must concur with the popular opinion that the tonal medium of Bach and Handel is predominantly major-minor. They both understood the modes but used them only occasionally, each in his own particular manner. Händel's plan was to interpolate modal sections but to revert invariably to the Major formulae at important cadences in order to reaffirm the tonality. Bach, on the other hand, gave many modal chorale melodies a major-minor harmonization. This resulted in the "mixed" style of harmonizing mentioned by Kittel. Exceptionally Bach wrote pseudo-modal passages and even gave some of his final cadences a Mixolydian turn.

A comparison between the modal styles of the two masters is interesting and important because each may be called the prototype of later manifestations of modality. Bach's "mixed" style is found in Brahms's harmonization of German folk songs, which are regarded as models of their kind. The "interpolative" modal style used by Händel may be compared to that of Liszt and most of the romantic composers who wished to simulate a religious atmosphere. These two are not the only modal styles: others will be discussed in their proper chronology.

BLAINVILLE AND THE TROISIÈME MODE

MANY ARE the men whose contributions to the cause of music claim for them a lasting place in the recorded development of the art. Perhaps many another just as deserving has been forgotten or his innovations mistakenly credited to a more colorful contemporary. All this might have been predicted by mere logic, but that a colorless individual, of no particular importance to music, should become immortal through a futile project is one of the paradoxes of history.

Charles Henri de Blainville (1711-1769) was a violoncellist and a teacher of music in Paris. He composed a small amount of unimportant music, among which were several cantatas, two ballets, a book of sonatas "pour le dessus de viole avec la basse continue," and several symphonies. Somewhat more pretentious are his theoretical works: *Harmonie théorético-practique* (1746), *L'Esprit de l'art musical* (1754), and *Histoire générale critique et philologique de la musique* (1767). But none of these possessed qualities which would have done more than gain for their author a brief mention in music encyclopedias.

In 1751 there was published in Paris a thin little volume, the title page of which runs as follows:

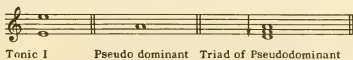
ESSAY
SUR UN TROISIÈME MODE
Présenté et approuvé par
Mrs de l'Académie des Sciences,
JOINT LA SIMPHONIE
Exécuted au Concert du Chateau des Thuilleries
30.May 1751.
PAR MR BLAINVILLE

The essay occupies seven pages, after which comes the symphony (in score) for strings, bassoon, and figured bass. The symphony, which exemplifies the proposed mode, consists of three movements: a slow introduction leading to the main section (*presto*); the last two movements are short; the second is an *Adagio*, and the third a *Minuetto*. The back cover is an "Extrait Des Registres De L'Académie Royale Des Sciences" which summarizes the theory and tells about the performance of the symphony before members of the Academy.

The mode proposed by Blainville was an exact inversion of the Major. This gave a diatonic form identical with the ecclesiastical Phrygian, a circumstance recognized by the author. The differences between the two were internal: the dominant of the old Church scale was the sixth degree but that of Blainville's scale, which he called "Mixed Mode," was the fourth. The location of the dominant on the fourth degree above the tonic carries out the inversion idea, since the fifth of the scale, the Major mode dominant, projected downward gives the *sub*dominant.

The Mixed Mode has neither dominant nor perfect cadence. Granted; but it has the plagal cadence of the ancients. By what right do we reject this cadence? Do we not have motets by Lalande which use it? Moreover, one cannot deny that the fourth may substitute for the dominant and take its place. One division of the octave rises, the other descends. It is the latter that I make use of; thus I satisfy the most rigid rules.¹

Apparently the chord on this fourth degree dominant or pseudodominant should have been extended downward by thirds from the root, not upwards as in conventional harmony.



Tonic I Pseudo dominant Triad of Pseudodominant

¹ Charles Henri de Blainville, *Essay Sur Un Troisième Mode* (Paris, 1751), p. 5.

But if Blainville intended this he did not make it clear; for the plagal cadence as always understood could not have been used in such a connection and so the interpretation is abandoned. It must be assumed that the ordinary IV-I progression is the plagal cadence to which he refers. But even if he makes no mention of the d-f-a chord as a possible pseudodominant chord, he so uses it at the midpoint of the introduction to his Symphony. (See below, p. 195.)

Blainville makes a great point of the fact that his Mixed Mode contains the inversion of the *Clavula vera* but his strict adherence to the inversion idea leads him inevitably to the six-four chord. Instead of avoiding the subject or equivocating, he triumphantly solves the difficulty by a neat chain of native *logique* with which the French love to demolish their opponent's arguments.

If one objects that the Mixed Mode, having no semitone as it arrives at its octave, seems to leave the ear in doubt as to whether the course of the scale is finished, I will observe that the ascending uppermost semitone that one desires is found in the Mixed Mode on the lowest degree, whether in the bass or treble. I shall explain.

When I complete the C-major scale, I finish my octave by ascending semitone b-c, but in descending the semitone is understood as the third of the dominant.

In the Mixed Mode of E the semitone is in the bass when ascending and in the treble when descending and thus comes the opportunity to complete the octave otherwise than we usually do. The semitone which is so precious to the ear is found in E-Mixed Mode, as it is in C-Major, but in a reversed order. A chord of the six-four is not less consonant than the chord from which it originates; if it is less perfect, it is also more piquant; it is better to leave the senses desiring something than to surfeit them; and it is thus that the Mixed Mode differs fortuitously from the Major and Minor Modes. Let us remark in passing that the further we are swept away from nature in the pursuit of Art, the less is the verity and simplicity but the more the effect.²

The extract from the registers of the Académie Royale des Sciences confirms the impression that the chord of the six-four is the proper tonic. "The principal chords of the two other modes are the third and the fifth; on the contrary those of the new mode are the fourth and the sixth."³

All this may be bizarre but it seems fairly clear. The feeling of understanding, however, is seriously threatened by the following explanation of the final chords.

In descending, I have the choice of finishing my scale by the common chord of its fourth note, or by the perfect major chord of its tonic. This can be done in two ways, either by the sustained note in the treble or by the plagal cadence in the bass. But the plagal cadence is no longer used? Alas! It is a resource which has been taken from us without reason and which I see no difficulty in reclaiming.⁴

Again "in descending" might be interpreted as applying to the formation of the two tonic chords in question.

1 2 3 4
I "the common chord of
its fourth note, or
Major
I by the common major
chord of its tonic"

B since the former case of the same kind could not have been so interpreted, as was shown above, it is reasonably safe to assume that Blainville was consistent, and therefore to discard the above solution for the following.

1 2
I "the common chord of
its fourth note, or
by the common major
chord of its tonic"

² *Ibid.*, p. 4.

³ *Ibid.*, back cover.

⁴ *Ibid.*, p. 6.

Curiously enough the resulting chords are the same except that the third of the *e-g-b* triad is minor in the first instance, major in the second.

The first of the two cadences mentioned in the last quotation is somewhat puzzling but by a process of elimination, it seems that what Blainville meant by the phrase "ou par la note soutenue dans le dessus ou par la cadence plagale dans la Basse" is the kind of treatment found at the end of the introduction of the Symphony, where, if this be a legitimate illustration, both the sustained note and the plagal cadence are used. The whole of the introduction is quoted. (Note that the melody is a scale: the pure Mixed Mode.)

Andante

Pseudo-dominant
d-f-a?

Sustained note (tonic)

IV of IV? IV

Plagal
cadence

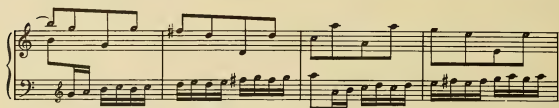
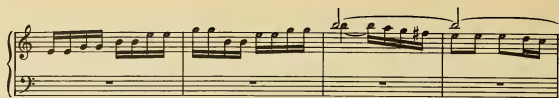
The cadence does not sound unusual and the reason is not difficult to understand: there is nothing in the last four measures which is at all foreign to strict major-minor harmony. The cadence is a double plagal, the essentials of which might best be described as *IV of IV* to *IV* and the two final chords, *IV* to *I*. This type of cadence strongly resembles Bach's "mixed" style of harmonizing and the above cadence has its prototype in the final cadence of the chorale quoted in the preceding chapter.

Although the introduction makes use of both the full octave of the ascending and descending "Mixed Mode," there is scarcely a progression which might not have occurred through a strict major-minor conception. The midcadence sounds like a *V of IV* in E-Minor because of the *g*[♯] introduced.

The above remarks apply to the entire work. No six-four chords are used, most of the harmonies are strictly major-minor, and except for a curious play between the *e-g-b* and the *a-c-e* chords of the first measures of the *Presto*, there is very little to suggest anything remarkable at all. After these measures no attempt seems to have been made to capitalize the new mode until the final cadence of the movement, which is a close copy of that of the introduction. Here are several excerpts from the Symphony.

Presto

Beginning of movement I.



Movement I, middle section.



First system of musical notation, measures 1-5. The key signature is two sharps (F# and C#). The notation includes treble and bass staves with various notes, rests, and accidentals. Fingerings are indicated by numbers 1-5. A repeat sign is present in measure 4.

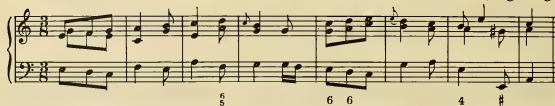
Movement I, coda.

Second system of musical notation, measures 6-10. The notation continues with treble and bass staves, including notes, rests, and accidentals. Fingerings are indicated by numbers 1-5. A repeat sign is present in measure 9.

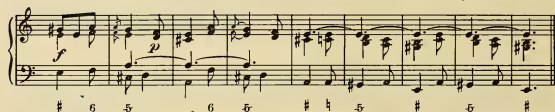
Final cadence, movement II.



Movement III, beginning.



Final cadence, movement III.



Blainville is disarmingly modest: he disclaims having used the new mode as effectively as might have been done by someone more skillful.

The Mixed Mode is not a new thing. It existed in the old counterpoint under the name *Fourth Mode* [Plagal Phrygian]. That is true, but all the notes of the scale were not used regularly, the possibilities were not imagined. Musicians of today persist in the same error by abandoning an important resource; they do not know how picturesque the result would be if the Mixed Mode were considered suitable and if it were employed by someone more skilled than I.⁵

Rousseau found the Symphony admirable and the members of the Académie are reported as having considered it successful.

Not content with the researches, we engaged M. Blainville to play for us a Symphonic piece of his own composition in which the new mode (called "Mixed") is principally employed. Of the several persons who took part in the experiment, some were informed on the subject, others were not. Nothing was found disagreeable in the music, nor was it harsh; the harmony seemed very good. We then had another symphony played which used none but the ordinary modes, after which the first was repeated with the same success as before.⁶

Despite the approval of Rousseau and the Académie, Blainville's proposed mode and his Symphony fell easy prey to his enemies. Serre, writing in *Le Mercure de France*, was the chief instigator of a storm of ridicule against the "*Troisième Mode*." In his *Essais sur les Principes de l'Harmonie*, Serre continued the discussion. The arguments brought to bear are not conclusive but apparently they were considered sufficiently damning by the Parisian public. The following extract is a fair example of the evidence cited against Blainville's scale.

Speaking generally, as in nature there are but two forms of human beings, male and female, so in music there are but two kinds of modes. It is possible to observe the contour of a human figure without being able to tell its sex at first glance, but one should not conclude that it is a third sex. It is equally easy to imagine a melody which does not reveal its mode at once, but that does not indicate that it is a third mode. I even dare to advance the idea that it would be more natural and more plausible to admit that there is but a single mode in music, the Major, than to suppose there is a third.⁷

⁵ *Ibid.*, p. 2.

⁶ *Ibid.*, back cover.

⁷ Jean Adam Serre, *Essais sur les Principes de l'Harmonie* (Paris, Chez Prault, Fils, 1753), pp. 26-27.

With its questionable manner of deriving the scale, its two tonic chords, the six-four chord proposals,⁸ and the failure of the Symphony to substantiate the claims of the author, the theory made a perfect target for the taunts directed at it. So successful was the attack that even Blainville's enthusiasm seems to have been dampened; no more music in the "Mixed Mode" appeared from his pen, nor did he again champion the scale — or at least he did not do so in print.

Blainville is unimportant in the history of the diatonic modes since his attempted contribution was a failure. Apparently he was content and even anxious to let the matter be forgotten. No pupils appeared to prove the value of their master's theories and take revenge for his humiliation. In spite of a complete lack of significance, no history of modality is complete without reviewing the fiasco of 1751. Perhaps Blainville's vindication is twofold in that not only is his own memory perpetuated through the ignominious failure of *le troisième mode* but that the survival of the name of his principal detractor depends on the part he played in the incident.

⁸ The absolute inversion idea has a modern exponent in the composer Alois Hába. In his book *Neue Harmonielehre* (Leipzig, Kistner und Siegel, 1927) he explains his theories. His

advocacy of the free use of the six-four chord is even more frank than Blainville's.

Chapter XXIV

THE LOWEST EBB OF MODALITY

AFTER BACH the major-minor system reigned supreme. The famous composers of the second half of the eighteenth century found ample tonal means within the bounds of these two modes. Even the masses of Haydn and Mozart are strictly conventional in this respect: their musical conceptions called for no evocation of religious atmosphere by resorting to ecclesiastical scales. Theirs was a classic art to which such romanticism was foreign.

By diligent search we may occasionally find odd scale formations in the works of these composers, but these are not necessarily modal. In the latter part of *Don Giovanni* there occurs a series of curious scales.

Mozart, *Don Giovanni*. Finale.

A Minor (Melodic) Aeolian Locrian? Aeolian

Mixed-minor? Phrygian?

Locrian

Melodic

The tonality here is undoubtedly *A* and it is possible to interpret the scales modally as shown, but this is of secondary importance: the whole treatment comes about through the domination of the principal idea, which is the chromatic expansion of the middle parts.

Even examples of this kind are rare. The Church scales seem not only to have fallen into disuse but to have been almost entirely forgotten. The period from Bach to the rise of nineteenth century romanticism made use of but two of the complete list of diatonic scales. It may be called the lowest ebb in the history of the diatonic modes, a history which reaches back at least 2,500 years.

There were three factors which operated to keep the old scales alive. Folk song was but slightly altered by the course of art music, and the melodies of the common people formed a rich heritage which was destined to be a strong factor in the reintroduction of those eclipsed members of the diatonic modes. The romantic movement and national schools owe much to this source, as will be demonstrated in subsequent chapters.

Textbooks constituted a second preserver of the diatonic scales. The famous *Gradus ad Parnasum* by Joseph Fux, published in Vienna in 1725, soon spread to all European countries. Fux attributed a fundamental importance to the ecclesiastical modes and his work is really a reversion to the teaching methods of the sixteenth century. He stoutly defended these scales against the "radicalism" of his contemporaries. The book had a wide influence and its rules of counterpoint dominated musical education for more than a century and a half. Haydn, Mozart, and Beethoven all used it in their studies and the first named based his teaching on it. Piccinni, Padre Martini, Abbé Vogler, Gerbert, Cherubini, and Bellermann all recommended it.

Another work which had a part in the survival of the Church scales was Lesueurs' *Exposé d'une Musique, une imitative et particulière à chaque solennité* (1787).¹ It is one of the few references on the subject published at that time and although it did not delve deeply, it did supply some information in a period almost bereft of such knowledge. In view of the author's later importance as a teacher of composition at the Conservatoire Nationale, the little book is not without significance.

Although it did not discuss the modes, *Elements of Musical Composition*, by William Crotch (first issued in 1812) had a certain freedom of harmonic outlook remarkable for that time. For instance, the author says, "It is doubtful whether the flat seventh to the key note, used with a fifth and third very commonly in national and other music, ought to be considered a change of key."² He mentions the fact that Purcell used the minor seventh preceding the cadence and illustrates it by an excerpt from *Dido and Aeneas*.³

Purcell, *Dido and Aeneas*, No. 11.



A work which was severely criticized but which nevertheless served to disseminate some information on the subject of the ecclesiastical modes was *Méthode d'accompagnement du plain chant*, by Louis Niedermeyer, published in Paris in 1855. An English translation was issued in 1905 with the title *Gregorian Accompaniment*.⁴

In German-speaking countries Dehn's *Theoretisch-praktische Harmonielehre* (1860)⁵ had considerable influence. Dehn contented himself with a concise exposition of the modes beginning with the Greek, but made no attempt to teach modal writing.

¹ J. F. Lesueur, *Exposé d'une Musique, une imitative et particulière à chaque solennité* (Paris, Chez la Veuve Herissant, 1787).

² William Crotch, *Elements of Musical Composition Comprehending the Rules of Thorough-Bass* (2d ed., London, Longman, Rees, Orme, Brown, Green and Longman, 1833), p. 55.

³ *Ibid.*

⁴ Louis Niedermeyer, *Gregorian Accompaniment*, trans. Wallace Goodrich, Novello (New York, Ewer and Co., 1905).

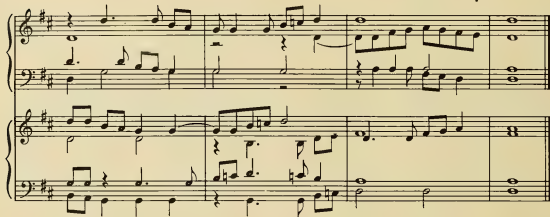
⁵ S. W. Dehn, *Theoretisch-praktische Harmonielehre mit angefügten Generalbassbeispielen*, Schlesinger'sche Buch- und Musikalienhandlung, Berlin (1860).

More recently there have been a number of excellent texts on modal technique, especially that of the sixteenth century, but by the time they appeared the renaissance of the modes was complete. Such books are but a by-product of the reawakened modal spirit: because of the date of their publication they can hardly be said to have contributed to the regenerative process.

The third factor in keeping the modes alive was the Church. Its influence was not only manifested through the great body of modal compositions handed down from the past, but also through Church composers — Fux, Fortunati, Lesueur and others — who used the traditional scales to some extent.

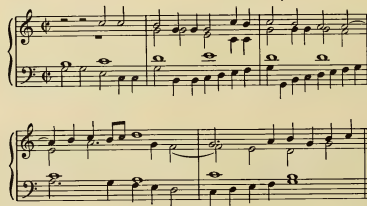
Fux (1660-1741) is credited with 290 Church works, many of which exhibit modal writing. The following excerpt, in the Mixolydian mode, illustrates his serious, dignified style.

Fux, *Missa S.S. Trinitatis*.
Close of "Kyrie."



Francesco Fortunati (b.1746), a pupil of Padre Martini, wrote modal Church music besides his secular operas, symphonies, etc. The following Mixolydian example is the beginning of *Psalm Dixit*, written in 1769 when he was *maestro di cappella* at Parma.

Fortunati, *Psalm Dixit*.



Lesueur was writing modal Church music in the years following 1806.⁶ During the nineteenth century of the many minor composers of sacred music (F. Krenn, M. Haller, Jakob Blied, Emil Nickel, Grell, Greith, B. Mittenleiter, Fr. Nekes, Molitor, J. Mitterer, Joseph Hanisch, E. Duval, L. Niedermeyer, Schaller, Skuhersky, and Rembt) only the works of Grell, Schaller, Krenn, Nickel, and Skuhersky display any marked modal tendencies. The five masses⁷ by Schaller are in a purer style than those of his colleagues.

⁶ See chap. xxv.

⁷ Included in the collection by Emil Nickel: *Lauda Sion, Sammlung von hundertfünfzig 2-, 3-, und 4-stimmigen Gradualien*,

Offertorien, Hymnen und Marianischen Antiphonen nebst fünf 3 stimmigen Messen für das ganze Kirchenjahr (Ratisbonae, Sumptibus Friderici Pustet, MCMIV).

Schaller, "Qui sedes."⁸

Final cadence.

Al - le - lu - ja.

E Phrygian

Franz Krenn (1816-1897) composed twenty-nine masses and much other music. Apparently he attempted to imitate Palestrina's style but in this may hardly be said to have been wholly successful. The *Missa ad modos Gregorianos*, Op. 51, is one of his best compositions. The *Kyrie* and *Gloria* of this work are Phrygian.

Many another composer who had no direct connection with the Church wrote sacred music. In this category are Beethoven, Berlioz, Liszt, Brahms, Mendelssohn, and Gounod, to name but a few of the most eminent. Their works belong in a special class which might be called sacred concert music. These compositions will be discussed in the following chapters together with the several composers' purely secular productions.

Thus we see that the use of the modes had been declining since the introduction of *Musica Ficta*. The decline was greatly accelerated after the formation of the major-minor system and the period of lowest ebb was between 1750 and 1825. But the modal scales never completely disappeared, never were completely forgotten. Always there were scholars who studied them, people who sang them, and composers who wrote music in them. Strong and steady were the three powers that preserved them and, in a sense, assured their regeneration. These three factors were textbooks, folk song, and Church music.

⁸ *Ibid.*, N°6.

Chapter XXV

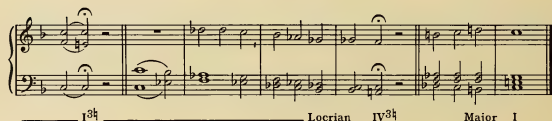
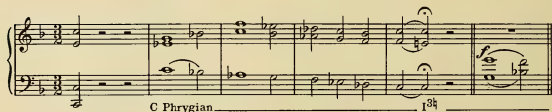
ABBÉ LESUEUR, ANTIQUARIAN

THERE WAS one composer in the last years of the eighteenth century who not only used the modes in his compositions, but also strongly advocated their employment to his pupils. To this one man is due much of the credit for rekindling in France, interest in the old scales.

Jean François Lesueur (1760-1837) sang in the choir at Abbéville from his seventh to his fourteenth year and it is to this experience that he owed his first knowledge of old Church music and the ecclesiastical modes. At the age of nineteen he was appointed *maître de musique* at Séz. After several changes of post, he arrived at Paris and, in 1786, through winning a competition, he became *maître de musique* at Notre Dame. It was here that he was made Abbé; only his ambition to write opera restrained him from becoming a priest.

By this time his interest in old music had become a passion. He not only studied Church music, but investigated the ancient Greek art. His music reflects this preoccupation and shows him to have been motivated by an antiquarian spirit. In his counterpoint he did not usually attempt to extend the expressiveness of the modes by more modern means such as the use of seventh chords and excessive modulation; instead, he sought only to recapture the moods of tranquil contemplation, of kindly dignity, and of unaffected piety.

Lesueur, 2e Oratorio pour le Couronnement,
"Beatus qui legit."



Lesueur, *Messe des Morts*, "Sanctus."

Soprano

Tenor

Baritone

Bass

Sanc - tus

Sanc - tus

Sanc - tus do - mi - nus de - us Sabaoth

G Mixolydian

Ple - ni sunt coe - li et ter - ra Glo - ri - a tu - a

Ple - ni sunt coe - li et ter - ra Glo - ri - a tu - a

Ho - san - na in ex - cel - sis

Ho - san - na in ex - cel - sis

Dorian

Mixolydian

Be - ne - dic - tus qui ve - nit in no - mi - ne Do - mi - ni

Dorian

Ho - san - na in ex - cel - sis

Ho - san - na in ex - cel - sis

Mixolydian

Lesueur, *Rachel Oratorio*, "Dico ego opera midi."

E Mixolydian

He did not always use the modes in as pure a form as did the Renaissance composers. This fact may have its explanation in the tyranny of the dominant seventh cadences, for Lesueur was often unable to refrain from resorting to conventional Major-minor cadential formulae. In this respect his methods resemble those of Händel.

Lesueur, *Cantate (religieuse) exécutée au mariage de*
S.M. Napoleon Ie avec l'Archiduchesse Marie Louise.
 No. 2 "In Peritia Sua."

Bb Aeolian

VII⁷ III
 [v⁷ of III] III

VII⁷ I Major V⁷ I
 [v⁷ of III] I

At least one innovation should be credited to Lesueur: by providing a simple harmonic accompaniment for a modal melody he created a modal homophonic style which has been much used since. The excerpt from the *Cantate* illustrates his modal homophony, as does the following:

Lesueur, *1re Messe Solennelle, "Credo."*

De - um de - o

A Minor V⁷ Dorian
 I



It was not through his music alone that Lesueur influenced the course of music in France. He had been one of the original professors of the Ecole de la Garde Nationale which was established in 1793, and when, two years later, this school led to the founding of the Conservatoire, he became an inspector of instruction and was a member of the committee which formulated the *Principes élémentaires de musique* for the new school. In 1802 he was dismissed from the Conservatoire, partly because of having published an audacious booklet, *Projet d'un plan général de l'instruction musicale en France* (1801), and partly because of attacks on Cherubini and Catel when an opera by the latter was given precedence over Lesueur's at the Académie. What might have proved a great misfortune turned out happily when he became *maître de chapelle* to Napoleon. He discharged the duties of his new post with credit to himself, wrote the mass for the Emperor's coronation, and, with the production of his most successful opera, *Ossian, ou les Bardes*, became a great favorite of the ruler.

In 1818 Lesueur returned to the Conservatoire as professor of composition and it was in that capacity that he made his most significant contribution to music. In the nineteen years that followed he taught a brilliant group of young men who were destined to perpetuate the influence of his teaching. An even dozen of his students won the coveted Prix de Rome: Bourgeois, Ermel, Paris, Giraud, Berlioz, Eugène Prévost, Ambroise Thomas, Elwart, Ernest Boulanger, Besozzi, Xavier Boisselot, and Gounod.

Lesueur's preoccupation with the old scales caused him to emphasize the subject in his teaching, a fact which has left its mark on the whole modern French school. He was a true academician and his didacticism is apparent even in his compositions: almost every instance of modality is noted in a subtitle printed in the score by such phrases as "Composé d'après l'antique harmonie des chants de la première Eglise," or "dans le mode Eolien." In the opera *Télémaque dans l'Isle de Calypso, ou le Triomphe de la Sagesse* (1796), which is Lesueur's principal effort at the employment of the Greek modes, the practice of calling attention to the mode is carried to excess: every division has a pedantic superscription. The following quotations were chosen at random: "*Choeur des Nymphes . . . dans le mode hypodorien et sur le nome choraique*"; "*Choeur des Vents: Sur le nome diphrique et sur le mode Eolien en observant la mélodie haute*"; and "*Moderato — Dans le mode lydien aigu, avec la mélodie mesoïde et Erolique*." Burdened with such pedagogics, the wonder is that the work succeeded.

Lesueur was convinced of the moral and ethical character of the modes and sometimes expressed his conviction that one mode inspired virtue and another vice. A persistent story relates that Gounod, to the amusement of the class, took advantage of the old man by playing music in a licentious mode while professing to play in a virtuous one. Such youthful pranks do not necessarily indicate disrespect, and in Lesueur's case he seems to have had the veneration of his students. The influence of his teaching is clearly discernible in the music of Berlioz, whose *Mémoires* (chaps. vi and xxx) show how much this eminent pupil honored and admired his master.

The full effect of Lesueur's teachings can never be correctly estimated for his doctrines were disseminated largely through the music of his pupils. But the purely pedagogical aspect of his influence can be gauged by the number of his students who became important professors. Antoine Aimable Elie

Elwart joined the staff at the Conservatoire the year before his master died and was professor of harmony until 1871. Napoléon-Henri Reber became a harmony teacher in 1851 and taught composition from 1862 to 1880. Charles Louis Ambroise Thomas was professor of composition from 1852 to 1871, when he was appointed Director of the Conservatoire. Jules Massenet, a pupil of Reber and Thomas, in his long term as teacher (1878-1912) had as pupils Bruneau, Pierné, and Charpentier. Ernest Giraud, Debussy's master, and Louis Albert, Bourgaule-Ducoudray belong in the direct line, since they were both pupils of Thomas. Bourgaule-Ducoudray was lecturer on the history of music at the Conservatoire. He wrote *Conférence sur la modalité dans la Musique Grecque*, and ardently advocated the employment of diatonic modes in composition.

Although he lived at the time when the Classical period was giving way to a new spirit, Lesueur was himself an antiquarian whose predilection for the scales of the Church and of ancient Greece placed him in the peculiar position of contributing to the genesis of the Romantic movement without being of it. It would be a gross exaggeration to claim that he foresaw the extent of the revival of the diatonic modes or that he alone was responsible for it. In any event, romanticism would soon have embraced modality as an inevitable development, but it cannot be denied that Lesueur exerted a desirable influence at a propitious moment.

Chapter XXVI

MODALITY AND THE FRENCH ROMANTICISTS

HECTOR BERLIOZ (1803-1869) was the pioneer of Romanticism in France. Because of an impatient temperament and circumstances of environment, in his early career he seems to have been a rebellious son, a refractory student, and an iconoclast. He defied his parents' wish that he become a doctor. He had nothing but disdain for Cherubini and the teachers at the Conservatoire, Lesueur being the single exception. Even his innovations seem to spring from an intolerance of former values. Living in a revolutionary age, he was imbued with the spirit of revolt. Bach's music he found dull. Beethoven, on the other hand, was his god: through the music of this composer he seems to have recognized a proud and defiant spirit whose prodigious struggles must have symbolized the very apotheosis of his own. Although he admired Gluck greatly, Berlioz was totally unlike the composer of *Iphigénie en Aulide*, who was willing to devote years to the definition of an aesthetic.

From the point of view of the formal art of the Classical period, the principles advocated by the young romanticists must have seemed artistic anarchy, a repudiation of the laws of beauty. So thoroughly did Berlioz subscribe to the theory of unrestraint that, but for the influence of Lesueur, even his musical training might have been more deficient than it was. The debt he owed that master was never forgotten, a fact to which his music testifies as plainly as his spoken and written word.

The use of the diatonic modes by Berlioz is undeniably a direct influence of Lesueur. Their employment is somewhat rare for the reason that Berlioz, unlike his master, had no interest in such scales for their own sake: his aims were not pedagogical. Neither was he concerned about questions of "correct" progression, traditional dominants, etc. His sole desire was to produce effects which the exigencies of a particular descriptive musical program required. If one of the diatonic modes offered a convenient means of obtaining the result desired, no other excuse was needed for its employment. The most patent use of these scales is to simulate a churchly atmosphere and although composers were later to discover in them a wider range of expression, Berlioz failed to go beyond the obvious.

The following examples of modality from *L'Enfance du Christ* (1850-1854) were introduced by Berlioz because of their appropriateness to the religious subject he was treating. Note the prevalence of Aeolian.

Berlioz, *L'Enfance du Christ*,
"Chorus of Ishmaelites."

A Aeolian Dorian Aeolian

Berlioz, *L'Enfance du Christ*,
 "Depuis trois jours."

First system of the musical score. The treble clef staff contains a melody in G major. The piano accompaniment in the grand staff features chords and moving lines in G minor, (Aeolian), and Aeolian modes. The key signature has three sharps (F#, C#, G#).

G# Minor (Aeolian) Aeolian

Second system of the musical score. The piano accompaniment continues with chords and moving lines in D# Aeolian mode. The key signature remains three sharps.

D# Aeolian

Third system of the musical score. The piano accompaniment continues with chords and moving lines in Minor mode. The key signature remains three sharps.

Minor

Berlioz, *L'Enfance du Christ*,
 "La Fuite en Egypte."

First system of the musical score for "La Fuite en Egypte." The time signature is 3/4. The piano accompaniment features chords and moving lines in F# Aeolian mode. The key signature has three sharps.

F# Aeolian

Second system of the musical score. The piano accompaniment continues with chords and moving lines in Dorian and Minor modes. The key signature remains three sharps.

Dorian Minor

I V I Minor I V7

Ibid.

B Major

Minor

Phrygian II

VI7 I Aeolian V I

Berlioz, *Les Troyens*, "March and Hymn."

C Major

Minor Lecrian II I⁶

Minor Locrian II⁶ Major V I I

Another French composer of the period who used the old modes was Charles François Gounod (1818-1893). He attended theological courses for several years and it was thought at the time that he would take orders. During his sojourn at the Villa Medici he studied Palestrina's music assiduously and wrote a mass which was performed at Rome in 1841. Another early mass was given in Vienna the following year, and the *Messe Solennelle* appeared in 1851. Throughout his life he continued to write Church music of all descriptions, most of which is forgotten today, but which in sheer quantity overshadows his secular music. It was during his last years, after he had become a religious mystic, that he composed his *Redemption, Mors et Vita*, and other large works. The *Messe à Jeanne d'Arc* is said to have been composed in the Rheims Cathedral while kneeling on the stone where Joan of Arc knelt.

In view of his temperament and his predilection for the Church, the failure of his sacred music to win approval must have been a bitter disappointment. And although it cannot account for the deficiency of the quality of the music, it is nevertheless a significant commentary on Gounod's ability to assimilate the essentials of a Church style to remark that he seldom employed the modes frankly, in spite of his study of Palestrina, his admiration for Berlioz, and the influence of Lesueur. All too often he substituted a kind of counterfeit modality which consisted of common-chord progressions. The resulting effect is neither major-minor nor modal; it is merely weak. This practice, plus a characteristic and studied simplicity, obtained mainly by chord reiteration, does not form a promising basis for a religious style.

Gounod, *Messe*, Prière pour le Roi.

Adagio

F I VI

VI I A^b I_4^6 V I

Very occasionally there are brief moments of real modality. The following instances occur in otherwise conventional surroundings. It may be thought that the excerpt from *Ulysses* is an elaborate II-V progression in C-Minor but the succeeding recitative (not quoted) is clearly G-Minor.

Gounod, *Ulysses*, No. 11.

Oboe

G Phrygian Major Phrygian

Major

Detailed description: This musical excerpt for Oboe is in 4/4 time. It features three distinct melodic phrases, each with a mode label below it. The first phrase is in G Phrygian (one flat, G as the tonic), the second is in G Major (no flats), and the third is in G Phrygian. The notes are often beamed in groups of four, suggesting a triplet feel. The final measure of the third phrase shows a descending scale in G Phrygian.

Gounod, *Messe*, "Credo."

Orch.

C Aeolian? Dorian (I)

Minor?

Detailed description: This musical excerpt for Orchestra is in 8/8 time. It consists of a single melodic line with a mode label below it. The first measure is in C Aeolian (three flats, C as the tonic), the second is in C Minor (three flats, C as the tonic), and the third is in C Dorian (two flats, C as the tonic). The notes are often beamed in groups of four, suggesting a triplet feel. The final measure shows a descending scale in C Dorian.

Perhaps influenced by the title of the poem he was setting (*Épithaphe d'une jeune Grecque*), Gounod at least on that one occasion employed the pure Aeolian mode with very pleasing results. The excerpts are taken from the opening and closing measures.

Andante

Gounod, *Épithaphe d'une jeune Grecque*.

D Aeolian

Detailed description: This musical excerpt is in 3/4 time and marked Andante. It consists of two staves, each with a mode label below it. The first staff is in D Aeolian (three flats, D as the tonic), and the second is in D Aeolian (three flats, D as the tonic). The notes are often beamed in groups of four, suggesting a triplet feel. The final measure shows a descending scale in D Aeolian.

Ibid.

Final cadence

The musical score consists of three systems of piano and forte parts. The piano part features a melodic line with eighth and sixteenth notes, while the forte part provides harmonic support with chords and triplets. The first system ends with a piano dynamic. The second system begins with a forte dynamic. The third system concludes with a final cadence, marked by a double bar line and repeat signs.

Strictly speaking, Frédéric François Chopin (1810-1849) does not belong to the French school, but it may be argued that such a classification is not without basis, since his father was French and most of his artistic life was spent in France. His temperament seems to have shown characteristics inherited both from his father and from his Polish mother. The dreamy melancholy, the violent contrasts, and the dance rhythms of Chopin's music are truly Polish but the refinement of his harmony may be claimed to be a result of French ratiocination. The melodic and rhythmic elements were strongly influenced by Polish folk music, but this apparently did not predispose him to make much use of the modes: for instance, his *Polish songs*, Op. 74, are major-minor. He rarely used real modality; the best examples are those in *Mazurkas*, Op. 24, no. 2 and Op. 41, no. 1.

Chopin, *Mazurka*, Op. 24, No. 2.

The musical score for Chopin's Mazurka, Op. 24, No. 2, is presented in a single system. It features a piano part with a melodic line and a forte part with chords. The score is divided into measures labeled with Roman numerals: A Aeolian I (VI), II, (III), IV, V⁷, and I. The piano part includes triplets and the forte part includes chords and single notes.

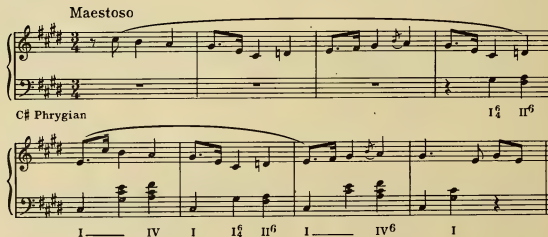


Ibid.



Note the Lydian II⁷ in the second and sixth measures of the excerpt: it is a V^7 of V formation which almost establishes C as tonic. Beethoven, in the famous Lydian hymn in *Quartet*, Op. 12, used the Lydian II⁷ in exactly the same way. (See chap. xxvii, p. 232.)

The *Mazurka*, Op. 41, no. 1, offers an extraordinary example of modality. First the theme is given in pure C[♯]-Phrygian harmony.

Chopin, *Mazurka*, Op. 41, No. 1.

Aeolian (Minor?) (Phrygian?)

Saint-Saëns, *Messe*, No. 2 "Gloria."

A I Major Locrian VII IV $\frac{6}{4}$

V $\frac{6}{4}$ (II) VII Major I

These first essays in the use of extra-major-minor material have a tentative air about them, especially when they are compared with examples from Saint-Saëns' later works. The two cadences from the *Piano Quintet*, Op. 14, were written only two years after the first mass.

Saint-Saëns, *Piano Quintet*, Op. 14.
Third movement.

I 6 III I V A Aeolian Major I

Saint-Saëns, *Piano Quintet*.
First movement

A Mixolydian I⁷
[V⁷ of IV]

IV

Minor
I⁶₄

Lydian
IV⁶

Phrygian
IV⁶

II⁶

Major
I

The following passage from *Ave Verum* invites comparison with those quoted from the mass.

Saint-Saëns, *Ave Verum*.

E \flat Major

B \flat I

Phrygian
VII VI⁶

III

Dorian
VI⁶

Phrygian
VII VI

II⁷

V³₄

I³₄

VI

II⁶

Major
Vc9
of V

V

I

E \flat V of V V

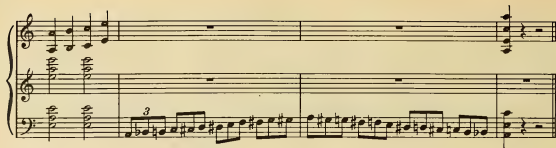
In 1886 Saint-Saëns wrote his delightful suite *Le Carnaval des Animaux*, of which the "Marche Royale du Lion" is Dorian.

Saint-Saëns, *Le Carnaval des Animaux*,
"Marche Royale du Lion."
Final cadence.

A Dorian I

III

I



The first *String Quartet*, Op. 112, dated 1899, is most remarkable in its employment of the Phrygian mode. Two quotations were given above, page 127 and page 129.

The Locrian tonic chord is a rarity as the chord of repose at the cadence, but Saint-Saëns offers a solution to the problem by altering the diminished fifth to perfect, a procedure which may be likened to the changing of the minor third to major in the effect called the *tierce de Picardie*.

Saint-Saëns, *L'Ancêtre*. Act II.

(C 1 $\frac{1}{2}$?)
E VI $\frac{6}{4}$ _____

Locrian
VI $\frac{7}{4}$ III $\frac{7}{4}$ Minor
I

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In 1893 Saint-Saëns brought out his music to Sophocles' *Antigone*. He seems in this work to have been the first to attempt an approximation of Greek musical style. The play has been treated by many composers, among them may be mentioned the following: Tommaso Traetta (1772), Francesco Bianchi (1796), and Niccolo Antonio Zingarelli (1796). Mendelssohn used the same subject for a male chorus with orchestra (Op. 55, 1841). All the above works are uncompromisingly major-minor. In a preface to his version Saint-Saëns says: "In order to reproduce as closely as possible the effect of antique choirs, the choruses are written in unison, employing instead of the modern Major and Minor scales, the Greek modes used in plain-song." Saint-Saëns uses the Greek Dorian prevaillingly but some use has been made of the Hypodorian, the Hypophrygian, and the Syntonolydian.³

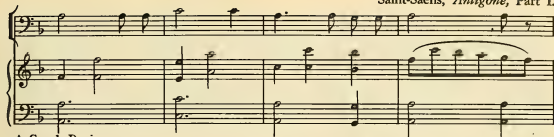
Saint-Saëns seems to be writing without a great deal of conviction. He resorts to extremes of octave doubling for the evident purpose of obtaining a full sound while making a show of conforming to Greek practice. This is especially manifest when we recall that his other works depend a great deal on orchestral sonorities for their effectiveness. Even the restrained polyphony employed was criticised as being an anachronism.⁴

The following quotations from *Antigone* are illustrative of the technique employed. Note the infrequency of accidentals and the correspondingly few changes of mode above a tonic.

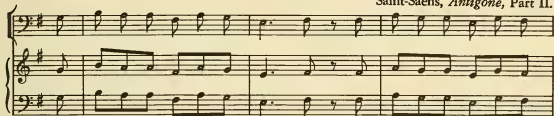
³ Syntonolydian mode:



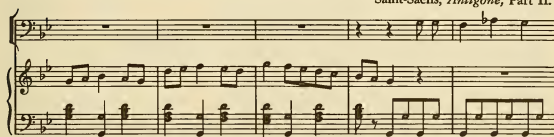
⁴ A later (1898) setting of *Antigone* by C. F. Abdy Williams has even less polyphony. Not only does he attempt to use the Greek modes but also Greek rhythms. Some polyphony was present in Greek music according to Reinach. (See his *La Musique Grecque*, pp. 69-71).

Saint-Saëns, *Antigone*, Part I.

A Greek Dorian

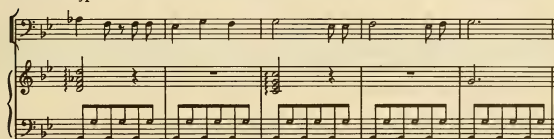
Saint-Saëns, *Antigone*, Part II.

E Greek Hypodorian or Phrygian

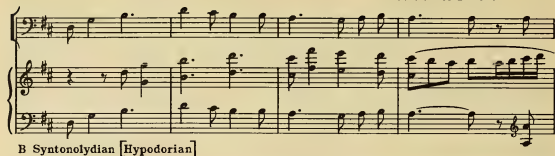
Saint-Saëns, *Antigone*, Part II.

G Greek Hypodorian

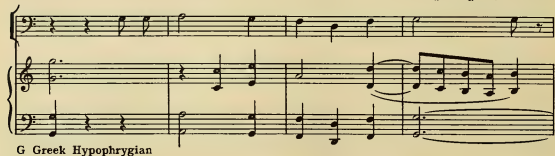
Dorian



Saint-Saëns, *Antigone*, Part III,
"Invocation to Bacchus."



Saint-Saëns, *Antigone*, Part II⁶.



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César Auguste Franck (1822-1890) is of minor importance to a study of the diatonic modes. He never adopted the ecclesiastical modes as part of his tonal material in spite of his long service as organist at St. Clotilde. His harmonic innovations were extensions of the major-minor system and the use of even such short modal interpolations as the following is comparatively rare.

⁶Other instances of modality may be found in the following works by Saint Saëns: *Les Noces de Prométhée*, Op. 19 (1867). Introduction—Aeolian. *Mémoires Persanes*, Op. 26. "La Brise"

—Dorian. *Messe de Requiem*, Op. 54 (1878). "Dies Irae"—Aeolian.

Franck, *Danse Lente.*

The lowered supertonic mannerism of Franck usually occurs as a lowered fifth of the dominant seventh chord but may be regarded as Phrygian melody used in connection with the major-minor leading tone. (See above, chap. xv.)

Franck, *Prélude, Chorale, and Fugue.*

C Minor I^6 $V^o_7^9$ VI^6 V^b_{5b} IV IV^{+6} I

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Franck, *Symphony, First movement.*

D Minor I $V^o_7^9$ $\frac{4}{2}$ I^6

Highly significant are the contributions of Emmanuel Chabrier (1841-1894) toward a freer conception of harmony. "... Chabrier and Fauré may be termed the first 'modernists,' since their independent styles constitute an indubitable assertion of French traits."⁶ They are "... the veritable foster-fathers of the generation of 1895."⁷

Harmonic freedom often means adopting modal harmonies to supplement those of the Major-minor system, but with Chabrier this was not so. Like Franck in this respect, his harmonic individuality depended on extending the traditional musical material, but the scope of his originality occasionally encompassed a passage which is modal. Two such examples are given below.

⁶ Edward Burlingame Hill, *Modern French Music* (Boston, Houghton Mifflin Co., 1924), p. 5.

⁷ *Ibid.*, p. 45.

Chabrier, *Gwendoline*, Overture.

C Dorian

C Dorian

Chabrier, *La Sulamite*, Opening.

Eb Aeolian (Major) Aeolian Major

Dorian (IV⁷ I) Aeolian Locrian Major
I⁷ IV III VI - VII I II⁷ VI⁷ V⁷ — 6

In their influence on the modern French school Chabrier and Fauré share honors but in the history of modality, the composer of *España* cannot be compared with his colleague. At about the same time, Fauré in France and Moussorgsky in Russia began to use the modes in a manner stylistically more mature than their immediate predecessors and contemporaries. To these two go the credit for first using the modes in a way which is wholly independent of ecclesiastical aesthetic. With them modern modality reaches a maturity which is not imitative of earlier styles: the evolution in the theory and practice of the modes which had been in progress all during the nineteenth century had finally brought about a complete break with the past. In order to differentiate the two styles, the newer may be called Harmonic Modality.

Gabriel Urbain Fauré (1845-1924) studied at the Ecole de Musique Religieuse with Niedermeyer, Dietsch, and Saint-Saëns, the last named being his real master. At the age of twenty-one he took a position as organist at St. Sauveur in Rennes. Four years later he was back in Paris as assistant organist at St. Sulpice. In 1896 he became *maître de chapelle* at the Madeleine and professor of composition at the Conservatoire. In 1905 he succeeded to the directorship of the latter. Meanwhile he had slowly come to be recognized as one of the great musical forces of France. His original and insinuating harmony and refined lyricism revealed a new side to French music and inevitably placed him in the role of spiritual leader of the younger generation.

Fauré's harmonic style shows a categorical acceptance of the principle of interchangeability of mode above a tonic. Although Moussorgsky preceded him by a few years in this innovation, there is no question but that Fauré evolved the idea independently and was one of the first to use it as a conscious formulation. By combining a free exchange of the modes with seventh and ninth chords on any degree, the vocabulary of harmonies was vastly increased. Another and less sensitive composer might have been lost in such a broad field, but from it Fauré deftly created a subtle harmonic texture.

The influences behind so radical a concept of harmony are difficult to conjecture. Born in the Midi, Fauré was no doubt familiar with modal *chansons populaires*. At the Ecole de Musique Religieuse he would have received instruction in the Church modes; through Saint-Saëns he would have become acquainted with the German romanticists; and at Rennes he would have experienced the folk music of Brittany. Saint-Saëns was convinced that the strict tonal system was breaking down and the young man must have been familiar with his master's ideas.⁸ Yet these factors do not explain the idiom of Fauré: he never used folk melodies nor does his music suggest any such influence; nor can any ecclesiastical style have been its prototype. The music of Saint-Saëns, although often frankly modal, never approached the technique exhibited by that of Fauré. A comparison of the excerpts given below with those given on the preceding pages will reveal the gulf which separates the music of Fauré from that of his predecessors.

The following excerpts have been chosen to supplement those given throughout Book One.⁹ The first two passages illustrate the lengths to which Fauré carries interchange of mode.

Fauré, *Pénélope*.

The musical score for Fauré's *Pénélope* consists of two systems of piano music. The first system begins with a treble and bass staff. The bass staff has a key signature of one sharp (F#) and a time signature of 3/4. The music features complex chords and melodic lines. Below the first system, the following labels are provided: G Dorian III, I⁷, VI⁷, III, VI, Major V⁷. The second system continues the piece, with similar harmonic complexity. Below the second system, the following labels are provided: Aeolian VI, IV⁷, III, ?, Mixolydian VII, I⁷, II⁷, Major V.

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⁸ Saint-Saëns in a "Causerie Musicale" in the *Nouvelle Revue*, November 1, 1879, wrote "Music has come to one of its periods of evolution. Tonality agonizes. The antique modes re-

enter the scene, harmony is being modified."

⁹ See Book One, pp. 10, 37, 45, 51, 62, 67, 73, 75, 87, 102, 113, 116, 122.

Fauré, *Fantaisie*, Op. 111.

G Aeolian V⁷ VI [V⁷_{b#} of V] V⁽¹¹⁾₉ +6 Lydian Major II V Lydian II⁴₂ Major V⁷ of V

V Major IV⁺₆ V Lydian II⁵₂ Major v⁴₂ Mixolydian V III⁷ Major III Minor V I⁶

Major I V I Lydian III I VI VII⁴₂ [v² of III]

Major II⁴₂ I⁴₂ Lydian II⁷ III Major V⁷ IV Mixolydian v⁴₂ I⁷ [v⁷ of V]

IV VI IV VI^{3#} II Lydian II Major [IV^{5#}] V⁷

Minor IV Phrygian V⁹₇ Locrian VI⁴₂ v^{7b} passing tone II^{3b} Aeolian II

Major I_3^2 Mixolydian I_4^6 VI^7 IV^6 Major V_5^6 2 Dorian Major III V_9^7

I VI^7 V [V^7 of VI] $II^{(7)}$ $III^{(7)}$ $IV^{(7)}$ III I

The cadences of Fauré are very interesting and seldom conform to traditional formulae.

Fauré, *La Bonne Chanson*, 1892.

"J'ai presque peur, en vérité."

E Phrygian IV^7 V^7 Major I_4^2

I

Fauré, *Le Jardin Close*,
"Inscription sur le sable."

E Dorian I V_4^6 IV^7 III VI^7 III_2^4 IV^7 I^7 III^7 I

Fauré, *La Bonne Chanson*, "N'est-ce pas?"
Final cadence.

G Major I I Pedal Dorian (or Aeolian) III Major I Dorian III

Major I Dorian III Major I

Fauré, *Pénélope*, Final cadence, Act I.

E Aeolian III Major Aeolian III I II⁷ 7 VI⁷ Major I

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Fauré, *Pénélope*, Act III, scene 5, Final cadence.

C Major IV⁷ Lydian IV⁷ [v⁹ of V] VI⁷ II⁷ [V⁷ of V] I

Fauré, *Pélleas et Mélisande*, Third movement.

D IV⁷ Phrygian II⁶ I⁶ Minor II⁷ Aeolian VII⁴ I

D IV⁷ Phrygian II⁶ I⁶ Minor II⁷ Aeolian VII⁴ I

Fauré, *The Birth of Venus*, Final cadence.

D Aeolian I VI IV VII⁶ Mixolydian I⁷ Locrian II

VI⁷ II Major I

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In contrast to Fauré, the source of modality as used by Vincent d'Indy (1851-1932) is clearly indicated in the music. He was a disciple of César Franck, from whom he probably received little or no instruction in the diatonic modes. D'Indy, however, was a man of broad culture whose intellectual curiosity needed no prodding. He was a true musicologist as well as a composer, teacher, conductor, lecturer, and editor. From his association with Bordes and Guilmant in their movement to revive old music and plain chant comes the influence of the Church scales, and from his collection *90 Chansons populaires du Vivarais*, Op. 52, comes his interest in the modes of folk song.

In the last part of *Le Chant de la Cloche*, when the Master Bellfounder's body comes into view, he quotes from the *Ritual for the Dead*. Again in *L'Étranger* when the Stranger and Vita have gone to certain death in an attempt to rescue the men in peril, an old sailor intones "*De profundis clamavi ad te Domine*" and the throng which witnesses the tragedy answers with a Phrygian cadence.

D'Indy, *La Légende de Saint Christophe*.

Do - mi - ne ex - an - di vo - cem me - an.

F Phrygian

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Another Phrygian cadence occurs in Op. 74.

D'Indy, *Pour les Enfants*, Op. 74.
No. 2 "A l'Eglise,"

E Phrygian VII⁷ I IV VI I IV I

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One of the chief motives of *L'Étranger* is Aeolian. It might be called the "Motive of the Tempest."

Later form

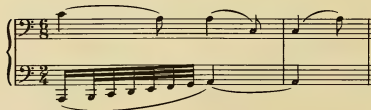
D'Indy, *L'Étranger*, Motive of the Tempest.



A Aeolian

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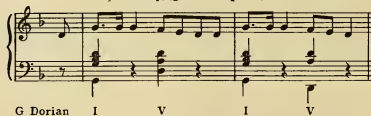
Early form



A Aeolian

In the *Quartet*, Op. 35, the theme of the third movement is Dorian.

D'Indy, *Quartet*, Op. 35, Third movement.



G Dorian I V I V

In the prelude to Act II of *Fervaal* a "Cevenote" *chant populaire* is used. It is said to be harmonized in the Mixolydian mode,¹⁰ but until near the end the tonality appears to be C and the mode mainly Phrygian.

D'Indy, *Fervaal*, Op. 40, Act II, Prelude.



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¹⁰ M. Kufferath, "Fervaal, A Musical Action in Three Acts and a Prologue," *Music* (September, 1897), XII, p. 565.



Although several of the composers who were discussed in this chapter lived well into the twentieth century, they belong primarily to a generation earlier than 1895. The succeeding generation will be the subject of Chapter xxx.

MODALITY AND THE GERMAN ROMANTICISTS

THE MOST remarked piece of modal writing in the past two hundred years occurs in Beethoven's *Quartet*, Op. 132, the third movement of which begins with an Adagio marked "Canzona di ringraziamento offerta alla divinità da un guarito, in modo lidico" ("Song of thanksgiving offered to the Divinity by a convalescent, in the Lydian mode). That the music is an exalted expression of its great composer there is no question. It should not detract from the enjoyment nor should it be considered at all derogatory to point out that the passage is not the pure piece of modal writing that certain enthusiasts contend.

That Beethoven was keenly alive to the musical significance of the modes, he has shown in his harmonization of the "Sacred song in the Lydian mode," in the quartet No. 15, Op. 132. The melody is harmonized exclusively with diatonic chords of the mode and without, of course, modulation. This is a typical example of genuine modal writing and one which musicians would do well to study.¹

Beethoven made no such claims: he probably would have resented as disparaging a remark that a piece of his did not modulate. Not only does the hymn modulate, but its character is not strongly Lydian. The peculiar quality of the Lydian mode is due to the tritone between the tonic and the augmented fourth degree. If, as here, the augmented fourth degree is harmonized by a V^7 of V chord, most of the individuality of the mode is lost.² The following annotated analysis is offered for the purpose of making the author's position clear.

Molto adagio Beethoven, *Quartet*, Op. 132, Third movement.

Annotations for the first system:

- Below the first measure: F Lydian? Major?
- Below the second measure: I
- Below the third measure: F Lydian II V
- Below the fourth measure: V of V V

Annotation for the second system:

- Below the first measure: VI
- Below the second measure: V⁷ of V Lydian II⁷
- Below the third measure: V⁷ of V Lydian II⁷ V
- Below the fourth measure: I V⁶
- Below the fifth measure: F I V⁶
- Below the sixth measure: I⁶
- Below the seventh measure: IV⁶
- Below the eighth measure: V⁷ of V

C. J. Sharp, *English Folk-Song: Some Conclusions* (London, Simpkin and Co., 1907), p. 48.

² See the Chopin example of the same kind on the preceding chapter, pp. 215-216.

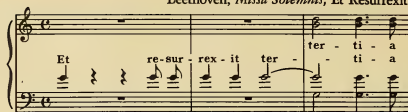
F C I V₃ I⁶ V_c³ I VI [Pseudo-modal effect] III IV V_c³ I V I
 C I
 V₇ I V_c³ I⁶ IV⁶ C IV⁶ V₇ I (IV) V₇ I (V of IV)
 F Lydian I⁶ II⁷ V I [V⁷ of V] V I
 Still C but F begins to emerge and does so at this point
 F V I VI⁶ Lydian II⁷ I⁶ V₇ of V I VI [Modulatory]
 [V⁷ of V] Akin to a pseudo-modal effect toward D-key of next movement

The tonality of the whole passage is rendered somewhat ambiguous by the employment of the seventh chord *g-b-d-f*. Because of the strong conventions associated with this form of chord under the major-minor system, its use engenders an expectation of resolution to the tonic with root a fourth above or a fifth below. As a logical extension of the system the chord *V⁷ of V* has become a commonplace of traditional practice, but it usually resolves to the dominant chord *with seventh*, which in turn must resolve to the tonic. In other words, the relationships are clear when the established pattern is followed. Beethoven, in the present case, has violated the formula, and, as a result, the chord relationships are not definite, the tonality deliberately weak.

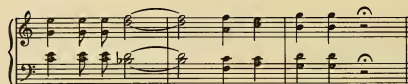
These observations should in no case be construed as a criticism. Weak tonality and pseudo-modality have their proper uses and who can say that in this piece of program music Beethoven did not find the perfect means of expressing the emotions of convalescence, that period of contented ennui in which the recent sufferer, now at peace, is more than willing to exchange vagueness about the future for forgetfulness of the past? Some such intention must have been Beethoven's if we may judge by the descriptive phrase placed at the beginning of the succeeding section: "Sentendo nuova forza" ("Feeling new strength").

A critical scholar might regret the fact that Beethoven did not observe certain established conventions of modal writing. It can be equally well maintained that the structure of the last quartets violates the classical model. The answer to both charges is the same: the music transcends mere form.

There are a few modal passages in the *Missa Solemnis*. They form a very small part of the whole work and seem limited to Dorian and Mixolydian.

Beethoven, *Missa Solemnis*, Et Resurrexit.

G Major I

Dorian
IV

III

VII II Major
I*Ibid.*

D Major I

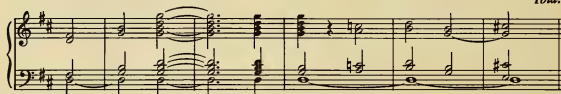
II

I

IV

Mixolydian
V

IV

Major
V*Ibid.*

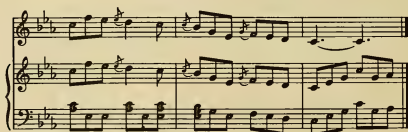
D Major

Mixolydian

Major

Beethoven was commissioned to provide settings for Scotch, Irish, and Welsh folk songs and the collection was published in Edinburgh in 1814-1816. Since many folk tunes of the British Isles are modal, it might be expected that the harmonizations might also be modal. Such is not the case, however, except for a few instances such as the following.

"When Far from the Home." Final cadence.

C Aeolian
VI⁶₄

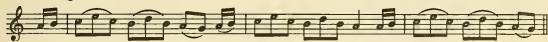
III

I

In some cases the melody has been chromatically altered to conform to the Major or Minor scale. These changes cannot definitely be ascribed to Beethoven for they may have been made by other hands before being given to him. Compare the original of "The Pretty Girl Milking the Cows" as given by Bunting³ with that of Beethoven.

Original:

"The Pretty Girl Milking the Cows."



Beethoven, "Oh! Would I were but that Sweet Linit."

(Air: "The Pretty Girl Milking the Cows.")



... How far he [Beethoven] employed Volkslieder and other tunes not invented by himself is not yet known. Certain melodies in the *Eroica*, "Pastoral" and No. 7 symphonies, and in the sonata op. 109, are said to have been thus adopted, but at present it is mere assertion.⁴

In two of the *Rasoumowsky Quartets* (Op. 59) Beethoven introduced Russian themes. That of No. 2 is conventional but that of No. 1 appears to have been Aeolian in its original form. Note that the seventh degree is the Aeolian form at the beginning but is raised to form the leading-tone in the cadence.

Beethoven, *Quartet*, Op. 59, No. 1.



³ Edward Bunting, *A General Collection of the Ancient Irish Music* (London, Preston, 1796), N°54.

⁴ H. C. Colles, "Beethoven," in *Grove's Dictionary of Music and Musicians*, I, p. 308.



If Beethoven used folk song to any great extent, no resulting modal influence is noticeable in his works. Either he altered the melodies radically, or he used only major-minor tunes. The only alternative to the above is that folk melodies found but small place in the art of the master, and all evidence points to such a conclusion.

It is safe to assert that the diatonic modes were of slight importance to Beethoven: he used them very little. What is significant is that he used them at all — and almost everything he did was in a sense prophetic. A beginning had been made and a precedent set. With Beethoven's last period begins the renaissance of modality in German musical culture, but the reawakening was not immediate. In spite of the example set by Beethoven, German composers were slow to adopt the modes and lagged behind the French in this respect.

Robert Schumann (1810-1856) wrote almost entirely within the limits of the major-minor system yet was sufficiently independent to make use of whatever tonal combinations served his purpose. Like Beethoven, he possessed a keen sense of humor, rare in composers of instrumental music. The *Humoreske*, Op. 20, composed before 1839, is one of the most extraordinary examples of musical humor, and it is in the cadence that Schumann finds use for harmonies from the Aeolian mode. This is perhaps the earliest instance of the use of modality for this purpose.

Schumann, *Humoreske*, Op. 20, Final cadence.

The oratorios of Mendelssohn (1809-1847) show no trace of modal writing. His musical expression lay wholly within the boundaries of the major-minor system. Franz Liszt (1811-1886), on the other hand, made some use of the modes in those of his works which have a religious basis.

As a young man Liszt had wanted to become a priest but was prevented from doing so by his parents. Although apparently negated by certain episodes in his career, the religious urge remained a vital factor in his life, as is proved by the fact that in 1858 he became a tertiary in the order of St. Francis of Assisi and received an honorary canonry in 1879. It was interest in the Church which stimulated Liszt to write his masses and other sacred works. His modality, then, may be said to have been largely the result of Church influence, a judgment which is borne out by the fact that most of his other works are conventional major-minor.⁵

In the *Graner-Messe* (1856), the "Credo" is Aeolian. The style adopted is simple and direct: there are neither seventh chords, nor accidentals.

Liszt, *Graner-Messe*, "Credo," Final cadence.

D Aeolian III⁶ I VII III IV IV⁶ VII I —
VI

In later works Liszt retained the simple chord forms but used some accidentals and some pseudo-modality.

Liszt, *Die Glocken des Strassburger Münsters*,
Final cadence.

C Major VI I Mixolydian VII I VII⁶

I VII Major V

Liszt, *Missa Choralis*, "Credo," Final cadence.

D Major VI I

⁵ See, however, the excerpt on p. 99.

Liszt, *Christus*, Opening measures.

Al - le - lu - ja. ———— Al - -

Clar.

G Mixolydian

le - lu - ja Al - le - lu - ja

Liszt, *Christus*, "Die heiligen drei Könige."

pp

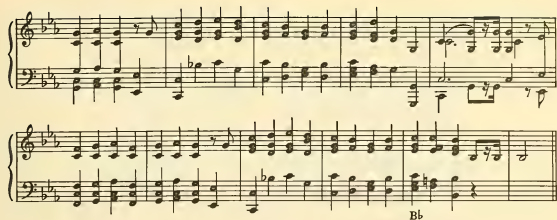
C Aeolian

col 8

col 8

[Bb?]

C Aeolian

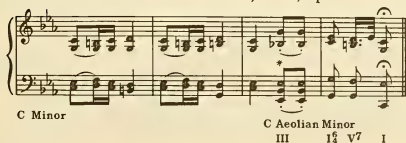


Other examples of modality may be cited: the *Oster-Hymne*, "O Filii et Filiae" from *Christus* (Aeolian), and the Kyrie of the *Missa choralis* (Dorian). It should be noted that the modal parts of these works represent but a small percentage of the whole: by far the greater part is conventional.

The fact that Liszt and Gounod were both interested in religion suggests the possibility of further resemblances, but aside from the irrelevant detail that their life spans were almost exactly equal, there seems to be none. Between the French and German schools it is Berlioz and Liszt who resemble each other in their manner of using the modes as a device for invoking a religious atmosphere but it was Fauré and Brahms who were the first to adopt modality as an essential element in their art. The comparison of the latter pair of composers must not be interpreted as meaning that their techniques were identical: such an impression would be erroneous. Fauré embraced interchangeability of mode unconditionally; he freely juxtaposed chords drawn from all the modes, rarely confining himself to a single mode for more than a few measures. His employment of the modes was not piecemeal. Brahms, on the other hand, although recognizing interchangeability of mode as a valid principle, subordinated its use to the Major-minor system; he regarded modal harmony as a means of gaining contrast; his harmonic technique is conventional with modal interpolations. Fauré represents a cleavage with the past and presages the future; Brahms' harmonic idiom belongs to the classic tradition of Mozart and Beethoven and his modality is at most an important adjunct.

Notwithstanding the fact that he was Liszt's junior by twenty-two years, Brahms seems to have been the first of the two to use modality: his piano *Sonata*, Op. 1 (1852) contains several modal touches and antedates Liszt's earliest modal essay (in *Graner Messe*) by several years. Furthermore, Brahms' modal style appears to have been mature at this time and may be said to have altered very little throughout his career.

Brahms, *Sonata*, Op. 1. Andante.



Ibid.

C Major

C Phrygian VII⁶₅
VI

This block contains a musical score for two systems. The first system shows a melody in C Major (treble clef) and a bass line in C Major (bass clef). The second system shows the same melody in C Phrygian (treble clef) and a bass line in C Phrygian (bass clef). The key signature changes from no sharps or flats to one flat (Bb).

VI⁶

IV⁶⁺₅

Major
I⁶₄

This block contains a musical score for three systems. The first system shows a melody in VI⁶ (treble clef) and a bass line in VI⁶ (bass clef). The second system shows the same melody in IV⁶⁺₅ (treble clef) and a bass line in IV⁶⁺₅ (bass clef). The third system shows the same melody in Major (treble clef) and a bass line in Major (bass clef). The key signature changes from one flat to no sharps or flats.

Brahms, *Klavierstücke*, Op. 118, No. 1. Opening.

A Phrygian

I⁶

I⁶₄

This block contains a musical score for two systems. The first system shows a melody in A Phrygian (treble clef) and a bass line in A Phrygian (bass clef). The second system shows the same melody in A Phrygian (treble clef) and a bass line in A Phrygian (bass clef). The key signature changes from one flat to two flats (Bb, Eb).

Brahms, *Trio for Piano, Clarinet, and Cello*, IV.

A Aeolian

This block contains a musical score for two systems. The first system shows a melody in A Aeolian (treble clef) and a bass line in A Aeolian (bass clef). The second system shows the same melody in A Aeolian (treble clef) and a bass line in A Aeolian (bass clef). The key signature changes from two flats to three flats (Bb, Eb, Ab).

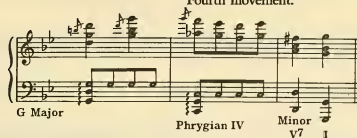
Brahms, *Sonata for Clarinet and Piano*,
Op. 120, No. 1.

F Phrygian

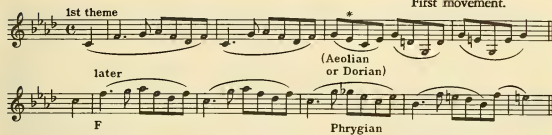
This block contains a musical score for two systems. The first system shows a melody in F Phrygian (treble clef) and a bass line in F Phrygian (bass clef). The second system shows the same melody in F Phrygian (treble clef) and a bass line in F Phrygian (bass clef). The key signature changes from three flats to four flats (Bb, Eb, Ab, Db).

Much of the modality evidently comes about through a desire for melodic contrast. Several such examples are quoted below.

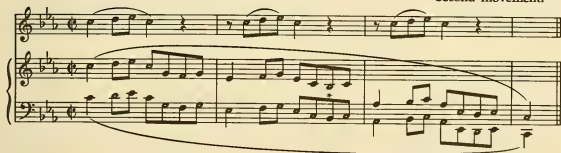
Brahms, *Piano Quartet*, Op. 25,
Fourth movement.



Brahms, *Quintet*, Op. 34,
First movement.



Brahms, *Trio*, Op. 101,
Second movement.



Brahms, *Concerto for Violin, Cello, and Orchestra*,
Op. 102, First movement.



Continuous employment of the Neapolitan sixth is sometimes responsible for the generation of the Phrygian mode. In the following excerpt from the *Trio*, Op. 40, the Phrygian seems to be evolved in this manner.

Brahms, *Trio for Piano, Violin, and Horn*, Op. 40,
First movement.

Violin

Horn in Eb

G v9 N6 I Phrygian II⁶ I III VII II VI

v⁶ VI⁶ — II⁶ VI v⁶ VI⁶ VI I⁶

The third movement of the *Quartet*, Op. 51, no.1, is quite similar except that Brahms seems to have been experimenting in the use of the Phrygian as a minor mode with leading tone. In the first-violin melody, the second degree always appears in its Phrygian form yet the seventh degree is usually b^{\sharp} , forming a leading tone. In the accompanying harmony parts, the second degree is usually restored to its Minor form. Note the Phrygian signature of four flats.

Brahms, *Quartet*, Op. 51, No. 1, Third movement.

C Phrygian IV Minor V Phrygian IV V Minor VI⁶ Phrygian II Aeolian VI⁴ VII³

III⁶ VII⁴₃ Phrygian III IV Minor V Phrygian Minor IV V v^c9 of IV

IV I⁴₄ I⁶ V⁷ I C Minor I Phrygian v⁶ II⁶ ———

Brahms was fond of this effect (Phrygian melody with leading tone) and used it a number of times. A notable case is that in the *Quintet in F-Minor*, Op. 34.

Brahms, *Quintet*, Op. 34, Second movement.

D

The Phrygian theme of the second movement of *Symphony No. 4* is thought to have been due to the composer's reading of Greek tragedy. The subject in Phrygian is given out in unison at the opening but after a few measures it is harmonized with alternating Major and Aeolian.

Brahms, *Symphony No. 4*, Second movement.

The first system of music is labeled "E Phrygian" below the bass staff. The second system has mode labels "Major I V^{9b} I Aeolian IV" below the bass staff. The third system has mode labels "Major Aeolian Major I⁶ Aeolian V IV Major I⁶ Aeolian IV Major I" below the bass staff.

The source of Brahms' modality can hardly be said to be religious influence as it was with Liszt. No melodic modality was employed in the *Requiem*, Op. 45, although in the second and sixth movements there is some pseudo-modality. The same method (emphasis on the secondary triads) is employed to simulate antiquity in the setting of an *altddeutsch* text.

Brahms, *Ich schell' mein Horn in's Jammerthal*,
Op. 43, No. 3.

The first system of music has mode labels "G I V III I IV I III" below the bass staff. The second system of music has mode labels "G I V III I IV I III" below the bass staff.



The evocation of a religious atmosphere through the employment of modes and the suggestion of antiquity through pseudo-modal means are both romantic ideas. That Brahms sometimes approached the techniques of Impressionism is illustrated by the beginning of the song "*Von ewiger Liebe*." Here the Aeolian is used to evoke the dark, shadowy forest: Debussy later was to use the Dorian for a similar effect in the introduction of *Pélleas et Mélisande*.

Brahms, *Von ewiger Liebe*, Op. 43, No. 1.

C# Aeolian I III VII I IV Minor V

Dun - kel, wie dun - kel in Wald und in Feld!

Aeolian I I VII⁶ I⁶ Minor V I

In the *Schicksalslied*, Op. 54, the composer has chosen the Phrygian mode for its appropriateness to the expression of the last stanza.

But we have been fated
To find on earth no repose.
They vanish, they falter,
Our suffering, sorrowing brothers;
Blindfolded from hour to hour
They are driven like water dashed
'Gainst the rocks by the tempest;
Darkly the unknown lures us below.

—Frederick Hölderlin

So frequent are instances of modality in the works of Brahms that it would be easy to expand the list given here but to do so would not serve any useful purpose since the main features of his style have

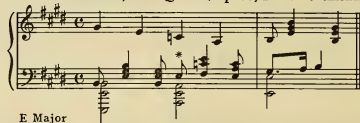
been illustrated.⁶ One peculiarity should be mentioned although it is not properly modal: Brahms very frequently employed a minor sixth degree in the Major mode, thus producing an effect which is sometimes falsely called modal. The same characteristic is frequently found among the Russian nationalists.

Brahms, *Schicksalslied*, Op. 54.



E \flat Major

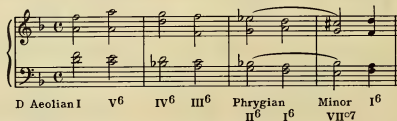
Brahms, *Piano Quartet*, Op. 60, Third movement.



E Major

Curiously enough Brahms had no immediate imitators in Germany in the matter of modality. The fact may perhaps be attributed to the influence of Wagner, who made little use of the diatonic modes. Bruckner is hardly important from a modal standpoint. His *Te Deum* and the Masses in E-Minor, D, and F-Minor exhibit almost no deviation from conventional practice. The following excerpt from the motet *Christus* is one of the few passages which might be considered modal.

Bruckner, *Motette*, "Christus."



D Aeolian I V⁶ IV⁶ III⁶ Phrygian II⁶ I⁶ Minor VII⁶ I⁶

Richard Strauss has followed the Wagnerian tradition and although it is true that he has added to Wagner's harmonic legacy, the modes are not a prominent feature of his style.

The deaths of Wagner, Liszt, and Brahms mark the end of a great period in German music. The younger men, Strauss, Schönberg, Reger, and their contemporaries, who began their careers before 1900, may be said to belong to two periods, but by reason of their spirit and technique their true place is with the moderns. In closing this study of the history of the diatonic modes during the German romantic period it is recognized that there is no clear demarcation between the old and the new. The sudden advent of impressionism in France about 1890 provides a rather definite date for the beginning of the modern period in that country. In Germany the change had the character of a transition instead of an abrupt outburst. Nevertheless, the final decade of the past century is not an arbitrary date for the beginning of the modern musical spirit in Germany, since during that time appeared such prophetic works as Strauss's *Don Juan* (1888), *Tod und Verklärung* (1899), *Till Eulenspiegel's lustige Streiche* (1895), Schönberg's *Verklärte Nacht* (1899), and *Gurre-Lieder* (1899-1901).

⁶ Examples of Brahms's modality given elsewhere in this work are to be found in Book One, pp. 25, 26, 27, 50, 51, 52, 53,

57, 58, 61, 63, 66, 68, 69, 70, 71, 73, 89, 93, 99, 100, 108, 110, 113, 116, 118, 122, 124, and 125.

MODALITY AND THE RUSSIAN NATIONALISTS

NOT ONLY was Glinka the creator of Russian opera and first of the Russian Nationalists but he was also the first composer of any country to make an extended use of the scales of folk song. His first opera, *A Life for the Tsar*, was written between 1834 and 1836 and far antedates all later works whose modality is the influence of folk music. The modal writing found in the works of Lesueur, Beethoven, Berlioz, and Liszt has its source primarily in ecclesiastical music.

Michael Ivanovitch Glinka (1803-1857) spent his childhood in the country. Here the music of the people must have made an indelible impression on his sensitive nature. It was during this period that he gained that understanding of the mood of Russian folk song which was to enable him to remain true to the unspoken traditions and unformulated aesthetics of his country's peasant music. It is perhaps fortunate that his formal musical education was meager because it is possible that a thorough training in classical harmony would have inhibited the very forms of expression on which his fame rests. Lacking musical erudition, Glinka was forced to express himself in the idiom with which he was familiar; he was compelled to solve his problems in a truly Russian way. The fact that he was consciously trying to write national opera in no way disproves this contention. Without the advantage of a Russian folk background his goal would probably have been unattainable.

Among the several characteristics of Russian folk song, modality is one of the most important. When he began his career Glinka knew little or nothing about the scales of the Church¹ and their elaborate theory but, influenced by the music he had learned as a child, even the overture to *A Life for the Tsar* makes use of a kind of modality. Note that the seventh degree of the scale does not appear in the Aeolian section, which, after all, may be regarded as E-Minor without the leading tone.

Glinka, *A Life for the Tsar*, Overture.

The musical notation consists of three systems of piano accompaniment. The first system is labeled 'E Aeolian (Minor with seventh degree omitted)' and shows a key signature of one sharp (F#) and a scale starting on E. The second system continues the melodic and harmonic development. The third system is labeled 'A Minor' and shows a key signature change to two sharps (F# and C#), indicating a shift to the Aeolian mode of A minor.

¹ Glinka later became interested in the music of the Church through his connection with the Imperial Chapel. Recognizing that the ecclesiastical scales were identical with those of folk music, he resolved to learn more of this branch of the art, and

in 1856 went to Berlin to study with Dehn. Apparently he was hardly conscious of the fact that he had been using the diatonic modes in a far more effective manner than had anyone else since the rise of the Major-minor system.

Another feature which is typical of Glinka is that he uses orthodox harmony for modulation and at the more important cadence points.

Glinka, *A Life for the Tsar*, Act II, No. 15a.

D Dorian I V⁶ I V⁶ I V⁶ I V⁶ I Minor V¹⁶ V^{c9}

The studious omission of the seventh degree was sometimes carried to extremes. Glinka seems to have felt the leading tone to be foreign to the idiom he was using, yet hesitated to employ the sub-tonic form which violated the rules of orthodox harmony. His method of solving the problem was to avoid the use of the seventh degree.

Glinka, *Ruslan and Ludmilla*, Act III.

A Minor?
Aeolian?

(18#)

A kindred device for avoiding the dilemma of the seventh degree was to accompany with bare octaves a melody in which this degree did not appear. Glinka evidently felt that such a tune as the one given below was not Minor and the use of the Minor dominant $c-e^b-g$ violated the Russian spirit. Unable to reconcile the chord $c-e^b-g$ with his slight knowledge of harmony, he adopted a treatment which made it unnecessary to use the seventh degree during the course of the melody.

Glinka, *A Life for the Tsar*, Act III, Opening.



F Aeolian

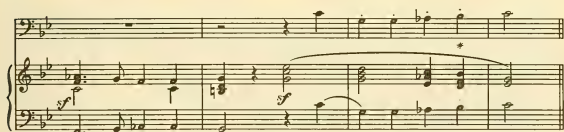
8.....



Minor

He did not always resort to such stratagems: sometimes the subtonic appears frankly.

Glinka, *A Life for the Tsar*, Act I.



C Minor

Aeolian *

Glinka, *Prince Kholsmsky*, Entr'act.



A Aeolian



Minor
V

III

I

Two kinds of pseudo-modality served the purposes of Glinka: (a) emphasis on a secondary chord (in the following case, at the cadence point).

Glinka, *A Life for the Tsar*, Act II, scene 2, No. 13.

C Major

III

and (b) the use of a minor subdominant in Major.

Glinka, *A Life for the Tsar*, Act II.

D Major

IV^{3b}

IV^{3b}

IV^{3b} I

This emphasis upon the minor subdominant became a noticeable mannerism; it is used in almost every scene of *Ruslan and Ludmilla*, and very frequently in *Prince Kholmsky*. The same device was exploited by Brahms later in the century, as we have seen.

There is no modal writing in *A Night in Madrid* or in *Kamarinskaja*. *Prince Kholmsky* and *Ruslan and Ludmilla* show a remarkable gain in harmonic resource. In the latter the style has so far advanced that such progressions as the following are found.

Glinka, *Ruslan and Ludmilla*, Act I, Finale.

Eb Major II⁶

V

I

Locrian

VI⁴

II⁶

IV⁶

Major

I⁴

V

I

Glinka, *Ruslan and Ludmilla*, Act IV, Finale.

Ab

I

Phrygian

VI

III⁷

IV

[Mixolydian]

I⁷

IV

V⁷ of IV

II⁶

I⁴

V

I

Glinka created from Russian folk song a serviceable and effective musical language in which modality is an important element. To this Alexander Sergeivitch Dargomijsky (1813-1869) contributed a heightened dramatic expression, racy humor, and a restrained declamation midway between song and recitative. His innovations were complementary to those of Glinka and were more concerned with matters aesthetic than with the tonal medium. In fact, Dargomijsky's harmonic style never embraced modality to any great extent. One of the few instances is found in *The Triumph of Bacchus*:

Dargomijsky, *The Triumph of Bacchus*.

The image shows two systems of musical notation for piano accompaniment. The first system is labeled 'A Aeolian' and the second system is labeled 'Minor' and 'Aeolian'. Both systems are in 2/4 time and feature a treble and bass staff. The first system begins with a key signature of one flat (B-flat) and a common time signature. The second system begins with a key signature of two flats (B-flat and E-flat) and a common time signature. The notation includes various musical symbols such as notes, rests, and bar lines.

His frequent employment of the minor sixth in Major is undoubtedly a direct influence of Glinka. Examples may be found in *The Triumph of Bacchus*, *Roussalka*, and *The Stone Guest*, but nowhere so consistently as in the *Fantasia on Finnish Airs*. In the finale of the last work the minor sixth appears so frequently that, although the key signature is that of A-Major, the tympany is tuned to f^{\sharp} and strikes this note measure after measure.

The chief importance of Mily Alexeivitch Balakirev (1836-1910) is that he was teacher to the little band of Nationalists called "The Five," and champion and propagandist for the fostering of all music which was truly Russian. His musical output, although of extraordinary quality, was not voluminous and his significance as a composer is outweighed by the consequences of his other activities. The music added little to the development of modality, since it is largely major-minor or else shows strong oriental influence. (See the symphonic poem *Tamara*, and *Islamey*, oriental fantasia for piano.)

César Antonovitch Cui (1835-1918) was the first of "The Five" to come under the guidance of Balakirev, but he was mostly self-taught. He was the son of a French father and a Polish mother, a fact which may help explain why the Russian element is rather attenuated in his music. Modality is little used and may almost be said to be nonexistent except for a few passages in the opera *William Ratcliff*.²

The music of Alexander Porphyrievitch Borodin (1834-1887) is occasionally modal³ but a more prominent feature of his style, especially noticeable in *Prince Igor*, is oriental color. This may suggest Balakirev's influence but it was possibly due to Borodin's own temperament and predilections since he

² There are instances of the use of the Aeolian mode in the opera *Angelo* (Act III, Chorus—Tarantella) and in the *Quartet*, Op. 45 (first movement).

³ *Prince Igor* contains the following modal passages:

Act II:

Scene and Chorus—Dorian

Chorus of the Polovtsian Patrol—Phrygian

Dance of the Boys—Aeolian

Men's Dance No. 2—Phrygian

Act III:

Chorus and Dance—Phrygian

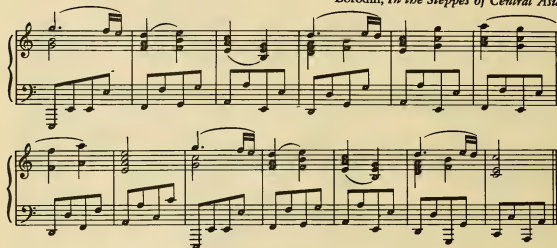
Act IV:

Jaroslavna's Complaint—Phrygian

Chorus—Aeolian

was the illegitimate son of an oriental prince. The conservative use of modality may be accounted for by the fact that he was reared in St. Petersburg and thus never came into contact with the music of the peasants. Borodin made effective use of pseudo-modality, however, as the following excerpt will attest. The melodic line belongs to C-Major but the V^7 always resolves to VI. Such emphasis on the deceptive cadence produces a play between the Major key and its relative Aeolian.

Borodin, In the Steppes of Central Asia.



Borodin made striking use of a harmonic device which consists of chromatically descending harmony which was frequently used beneath a purely diatonic melody. The effect, therefore, is neither real modulation nor true modality, yet some of the chords have a modal relationship to the tonic.

Borodin, Second Quartet, "Notturmo."

A Major IV V^7 of VI III Lydian II⁷
[V^7 of V]

Aeolian VII Major I Aeolian IV Major V^7 I

Borodin, In the Steppes of Central Asia.

A Aeolian



Modeste Petrovitch Moussorgsky (1835-1881) was a follower of Dargomijsky in the matter of declamation and aesthetics, but from the point of view of modality his master was Glinka. Having passed his boyhood in the country, Moussorgsky was thoroughly imbued with the spirit of folk music, and his early environment left an unmistakable mark on his compositions.

In general, the modal methods of Moussorgsky resemble those of Fauré, although their personal musical styles are quite different. Through an unreserved adoption of the principle of interchangeability, both employ the modes melodically and harmonically with the greatest freedom, and Moussorgsky even preceded Fauré in this respect by a few years. No mode is ever used for very long, and in many passages it changes with every chord or two. Such constant shifting is largely responsible for the fact that the music never sounds as if it were an imitation of the ecclesiastical style. The new usage emancipated modality from the role of a mere coloristic device of romanticism and transformed it into a neoclassic technique. Instead of being called in for a specific programmatic purpose, modality, when used in a manner so thoroughgoing, becomes a technique of absolute music. The melodic and harmonic potentialities are as broad as possible within the frame of the diatonic scale system of Western civilization. In the breadth of this concept is realized the full flowering of the Harmonic Modes.

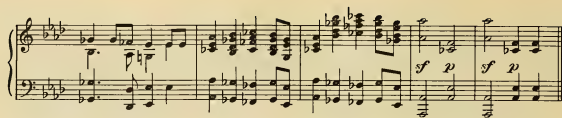
Moussorgsky, *Boris Godounov*, Act IV, scene 1,
Introduction.

Ab Mixolydian V VI⁷ V⁶ I IV Minor Lydian V VI⁷

I II

Mixolydian V Minor Lydian Dorian VI⁷ V I III Minor V VI

I II III

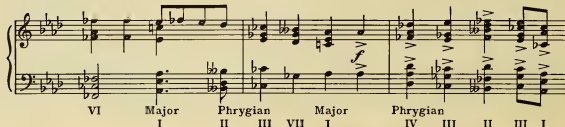


Aeolian VII IV Minor V I Aeolian VII VI VII V I VII VI VII V I Dorian I⁺⁶ I I⁺⁶

Moussorgsky, *Boris Godounov*, Act IV, scene II,
Chorus of Boyars.



Ab Aeolian I II⁷ I⁶ IV⁷ I II⁷ I⁶ IV⁷



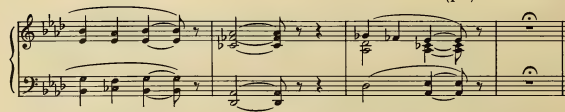
VI Major I Phrygian II III VII I Phrygian IV III II III I



IV III II III Major V I Phrygian VII VI VII V I VII VI VII



I I⁺⁶ Minor V₄[♯] VI₄[♯] (I⁺⁶) V₄[♯] VI⁶



V VI₄[♯] (I⁺⁶) V₄[♯] IV⁷ Aeolian IV I

Moussorgsky, *Boris Godounov*, Scene I.
Prologue.

C

Phrygian
v+6

Major
I

It should be remarked that Moussorgsky rarely makes any concession to the major-minor system: even in the cadences a mode is retained in pure form.

Moussorgsky, *Khovantchina*, Final cadence.*

A \flat Aeolian

I IV I VI I IV I VI I

Moussorgsky uses the Major and Minor modes a great deal: to do otherwise would be to deny himself the full tonal palette of the Harmonic Modes. He is always ready, however, to interpolate a modal chord or short passage if it serves his purpose.

Moussorgsky, *Without Sun*,
"All Past the Feast Days."

E \flat I $\frac{4}{4}$ 7 Mixolydian Major V IV I $\frac{6}{4}$ V I $\frac{4}{4}$

* This final cadence may possibly have been written by Rimsky-Korsakov, but if so, it is thoroughly in keeping with Moussorgsky's style.

Moussorgsky, *Khovantchina*, Act I, scene No. 2.

A Minor V $1\frac{1}{2}$ Aeolian

Minor I $V\frac{3}{4}$ Aeolian

Almost every scene of *Boris Godounov* and *Khovantchina* exhibits modality.⁵ The songs and other works are somewhat less uniform in this respect but examples are not lacking as is proved by the excerpts given above and elsewhere.⁶

The circumstances of the early life of Nicholas Andreievitch Rimsky-Korsakov (1844-1908) were very similar to those of Moussorgsky. He passed his childhood in a rural environment where he absorbed the folk-song spirit. Destined for a naval career, he attended the Naval College in St. Petersburg but at odd times continued a musical education begun at the age of six. It was at this time that he met Balakirev and was fired with the musical ambition which eventually resulted in his resignation from the service.

Rimsky-Korsakov recognized interchangeability of mode as a valid principle but practiced it in his own way. He was much more likely to use a single mode for an extended passage than was Moussorgsky and for this reason his modal methods are a closer approximation to those of Glinka than were his colleague's. This style seems more suitable for the musical utterances of one who was essentially lyrical. Rimsky-Korsakov used the diatonic modes for coloristic effects and for reasons of program. In a word, his modal usage was that of a romanticist.

⁵ *Boris Godounov*:

(Paul Lamm, ed., Vocal score, London, Oxford University Press, 1928.)

Prologue:

Scene 1

Introduction, pp. 1, 2—Aeolian

Prayer (Chorus), pp. 5, 6—Aeolian

Dialogue, pp. 8, 9—Phrygian

Chorus, p. 14—Aeolian

Scene 2:

Introduction, pp. 31-34—Locrian and Lydian

Act III:

Scene 1

Marina's Song, pp. 238-39—Lydian

Scene 2

Polonaise, pp. 270-72, 277-279—Lydian

Act IV:

Scene 1

Introduction, pp. 305-306—Aeolian

Pimen's Narrative, pp. 349-50—Dorian

Boris's Charge to his Son, pp. 357-58—Aeolian

Choir, pp. 361-64—Aeolian

Scene 2

Chorus, pp. 399-400—Aeolian and Phrygian

Khovantchina:

Act III:

Introduction—Phrygian and Aeolian

Chorus—Mixolydian and Aeolian

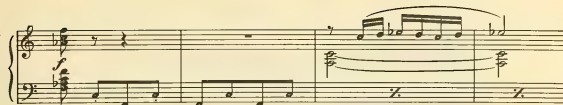
Act IV:

Introduction and First Chorus—Aeolian

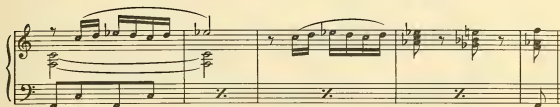
Scene 7—Aeolian and Phrygian

⁶ Other modal quotations from Moussorgsky's works will be found on the following pages: pp. 4, 43, 45, 48, 59, 64, 67, 69, 72, 78, 80, 82, 91, 102, 109, 110, 112, 117, 118, 129 and 147.

Rimsky-Korsakov, *Snégourotchka*,
"Danse des Buffons."



F Dorian



Minor I
V⁷_b

Rimsky-Korsakov, *Scheherazade*, III.



G Major

Phrygian

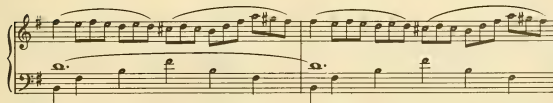
Major



Phrygian

Major

Rimsky-Korsakov, *Scheherazade*, I.



B Dorian



V⁷ of A I

Rimsky-Korsakov, *Sadko*,
"Danse des ruisseaux et des sources."

Ab Major

Aeolian VI

Major I

Rimsky-Korsakov, *Capriccio Espagnole*, No. 2,
Variazioni.

F Major I

IV+6

I

Aeolian IV+6

I

Rimsky-Korsakov⁷ sometimes used pseudo-modality with surprising effect. The following example is particularly striking, since it bears a general resemblance to a passage in Stravinsky's *Petroushka*, although the means employed are very different.

⁷ For additional modal passages in the works of Rimsky-Korsakov, see the following:

Nuit Méridionale, Op. 3—Phrygian

Le Vieux Mont et la Nue, Op. 3—Aeolian

Sur les Collines de Georgie, Op. 3—Phrygian

Sadko

Tableau III:

Beginning—Phrygian

Tableau IV:

Scene between Douda and Sopiël—Aeolian

Chanson Varègue—Dorian and Aeolian

Snégourotschka

Act I

lère Chanson de Lel—Dorian

Act II

Hymne des Barendes—Phrygian

Hymne finale—Dorian

Act III

Opening chorus—Mixolydian

Pykovitianka

Close of Act I, scene 2, tenor solo with male chorus—

Aeolian

The Tsar's Bride

Act II, scene 3

Intermezzo—Aeolian

Mlada

Act II, scene 4

First Chorus—Aeolian

5/8 Chorus—Lydian

Priests' Chant—Aeolian

Act IV

Beginning—Aeolian, later Phrygian and Mixolydian

Jour de Fête

3—Mixolydian

La Grande Pague Russe—Aeolian and Dorian

Die Legende von der unsichtbaren Stadt Kitesb und der

Jungfrau Fevronia

Act II—Dorian, Aeolian, and Phrygian

Act III, scene 1—Aeolian, Dorian, and Phrygian

Act IV

A cappella chorus—Lydian

Rimsky-Korsakov, *Pskovitianka*,
Act II, scene 2, Intermezzo.

Figured bass symbols for the first system: F, v6, IV6, III6, II6, I6, II6, III6, II6, VII6, VI6, v6.

Figured bass symbols for the second system: IV6, III6, IV6, v6, IV6, V, I.

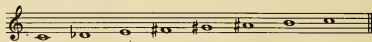
Stravinsky, *Petroushka*.

Most of the Russian contemporaries of the composers discussed above used the diatonic modes to some extent but their contributions to the development of modality are comparatively unimportant. For this reason, the compositions of such composers as Liadov, Napravnik, Arensky, Rubinstein, and Tschaikovsky are not treated in detail, although excerpts will be found elsewhere in this work. The younger men, Glazounov, Gretchaninov, Scriabin, Stravinsky, and Prokofiev, belong to a more modern period, a brief sketch of which is the subject of Chapter xxx.

Chapter XXIX

OTHER MANIFESTATIONS OF MODALITY IN THE NINETEENTH CENTURY

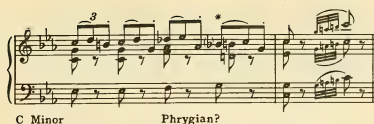
THE REVIVAL of the use of the diatonic modes during the nineteenth century was mainly confined to France, Germany, and Russia. The composers of England were under German influence and had not yet begun to be affected by their own folk songs. Spain's nationalists had yet to be shown the way by Debussy, Ravel, and other foreign writers of "Spanish" music. In Italy the whole musical scene centered around lyric opera, the success formula for which did not include excursions into modality. Only Verdi seems to have had an occasional urge to experiment with odd scales. The *Ave Maria* (1898) on a "*scala enigmatica*" is clearly probative and, although diatonic, the scale is not a member of the family of diatonic modes which has so long been part of our Western civilization.



Another oddity occurs in *Aida* (1870) and is obviously the result of a desire to represent the exotic color of Egypt. The scale used has a minor second like the Phrygian but the major third denies such a classification. Note the simultaneous b^b and b^{\sharp} in the second excerpt.

Verdi, *Aida*, Act I.

A musical score for Verdi's *Aida*, Act I. It consists of two systems. The first system is labeled 'Solo' and 'Orch.'. The 'Solo' part is on a single staff in treble clef, key of E-flat major (three flats). It contains a melodic line with a trill on the first measure, followed by a series of eighth and sixteenth notes, and a triplet of eighth notes in the third measure. The 'Orch.' part consists of three staves: a treble staff, a middle staff, and a bass staff. The treble staff has a melodic line with a trill on the first measure, followed by a series of eighth and sixteenth notes, and a triplet of eighth notes in the third measure. The middle and bass staves have a rhythmic accompaniment of eighth notes. The second system continues the 'Solo' and 'Orch.' parts. The 'Solo' part has a melodic line with a trill on the first measure, followed by a series of eighth and sixteenth notes, and a triplet of eighth notes in the third measure. The 'Orch.' part continues the rhythmic accompaniment. The key signature remains E-flat major throughout.



C Minor

Phrygian?

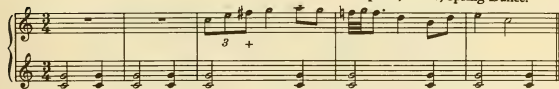
While Spain and Italy lagged behind Russia, Germany, and France in the rediscovery of the diatonic modes, Norway and Czechoslovakia were keeping abreast of developments through flourishing national schools.

Edward Hagerup Grieg (1843-1907) and Richard Nordraak consciously planned the Norwegian national movement in music. After the latter's death in 1866 Grieg continued pioneering with such effectiveness that today he is not only regarded as founder but also as the greatest composer of his native school.

The most famous modal passage in a work by Grieg is the final cadence¹ of the *Piano Concerto*, Op. 16. It is this Mixolydian harmony (Mixolydian V⁷) and scale which, at the interview with Liszt in 1870, caused that master to exclaim, "G, g, not g-sharp! Wonderful! That's the real Swedish flavor!"²

Grieg's modality is apparently not the result of a purist's passion for the scales of folk song, because he does not display any marked modal tendency in his arrangements of folk melodies nor in compositions based on them.³ Somewhat exceptional are the following and whether or not they are genuine folk tunes, they show the composer's fondness for the Lydian mode.

Grieg, *Nordic Dance and Folk-tunes*,
Op. 17, No. 1, Spring Dance.

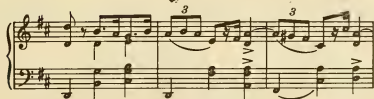


Grieg, *The Mountaineer's Song*, Op. 73, No. 7.



C Lydian

Grieg, *Four Humoresques*, Op. 6, No. 1.



D Lydian

¹ For the excerpt, see above, p. 33.

² Richard H. Stein, *Grieg: Eine Biographie* (Berlin, Schuster and Loeffler, 1921), p. 53.

³ See the *Album für Männergesang nach norwegischen Volksweisen*, Op. 30.



The *Trauermarsch zum Andenken an Rikard Nordraak* has the characteristic minor seventh scale degree.

Grieg, *Trauermarsch zum Andenken
an Rikard Nordraak.*



There are a number of passages which are Aeolian, among them the first movement of the quartet, Op. 27, and the fourth of the *Humoresques*, Op. 6. From the latter work comes the following:

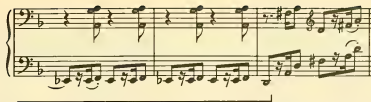
Grieg, *Humoresque*, Op. 6, No. 2.



The Phrygian is somewhat rare with Grieg. The following excerpt is used for humorous contrast: previously, thirty-second note figures in the upper parts obviously represented the twittering of birds but when transferred to the bass the effect is truly droll.

Grieg, *Vöglein*, Op. 43, No. 4.





In common with many North European composers, a stock device of Grieg was to use the minor subdominant chord in the Major mode. The practice is rare in southern countries but is found frequently in the compositions of German, Russian, Scandinavian, and Czechoslovakian composers. With Bedrich Smetana (1824-1884), founder of the last-named school, this form of pseudo-modality was greatly exploited and is especially prominent in his salon pieces, polkas, dances, and so on.

Apparently Smetana did not regard the diatonic modes as the essence of a Czech national style because his music is almost wholly Major-minor.⁴ On the other hand, there is a certain freedom in his harmonic methods which gives his music its individuality.⁵

The remarks about Smetana's modality apply equally to Zdeňek Fibich (1850-1900) if we add that he came successively under the spell of Weber, Schumann, Liszt, and Wagner. His influence outside Czechoslovakia is slight in comparison with that of Smetana and Dvorák.

It was Antonín Dvorák (1841-1904) who first incorporated the modes of Czechoslovakian folk music into his compositions. Like Fauré and Brahms, his manner of using the modes was mature even in the earliest works and seems to have undergone no change throughout his life. The second movement of *Symphony No. 1* (1872) begins with an Aeolian passage:

Dvorák, *Symphony in E'* (posthumous),
Second movement, Beginning.

Tempo di marcia (♩ = 88)



C# Aeolian ————— Phrygian Minor

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It will be noticed that Dvorák reverts to a conventional V⁷ for the cadence. The practice places him in that category of composers who employ the diatonic modes but rely on major-minor formulae for cadences.⁶ This method is perhaps due to a desire to combine the strong tonality of the major-minor with the more comprehensive melodic expression of the modes.

Dvorák, *Symphony No. 5, Finale*.



E Aeolian I

II⁶

I

III

I

⁴ Smetana admitted that he was strongly influenced by Pavl Krizkovsky (1820-1885), composer of male choruses in folk song style.

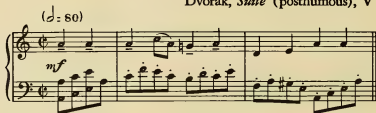
⁵ See examples in Book One, pp. 31, 77, and 113.

⁶ Other such composers: Berlioz, Liszt, and Glinka.



In another way the composer shows his wish to fuse major-minor strength and modal variety: a modal melodic line (usually Aeolian) is supported by a major-minor accompaniment.

Dvorák, *Suite* (posthumous), V



A Aeolian
Minor

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Dvorák, *Suite for Piano Quartet*, Op. 98,
Fourth movement.



Dvorák was fond of contrasting repetitions of his melodies and developing his motives by referring them to different modes. The idea has since become common property and perhaps no one has utilized it to the extent of Dvorák's son-in-law, Josef Suk. The following excerpts are illustrative of the technique.

Dvorák, *The Moon-Witch*, Op. 108.

A Phrygian

Minor (Aeolian) Phrygian

Dvorák, *Quartet*, Op. 34,
Trio of Second movement.

Eb Major

Eb Aeolian

Minor V⁷

1

Dvorák seems to have preferred the Aeolian mode but did not use it exclusively. Where other modes are employed, there seems to be some special dramatic reason. The Phrygian example from the

Moon Witch (quoted above) accompanies the father's finding of the dead infant in the arms of the swooning mother. The following polymodal passage (Lydian and Major) expresses the hysterical gaiety and guilty agitation of the bride during the marriage scene as she remembers her murdered first husband.

Molto vivace Dvorák, *The Wild Dove*, Op. 110.

C Lydian Major Lydian

Lydian Major Lydian

A surprisingly large part of Dvorák's compositions include modal writing. A number of quotations from his works were included in Book One, Part I.

Leos Janáček (1854-1928) is considerably less important from the standpoint of modality although he is in the direct Krizkovsky-Smetana-Dvorák line. The beginning of the third act of his opera *Jenufa* is Dorian and there are other instances of modality, but his special preference was for the Aeolian and an odd scale which presumably is found in the native folk music.

On the other hand, the use of the Greek scales is to be regarded as conscious with Novák and Janáček and is the result of their more intensive study of Moravian and Slovakian folk song. Janáček had a predilection for using the scale $g^{\sharp}, a^{\sharp}, b, c^{\sharp}, d, e, f^{\sharp}, g^{\sharp} \dots$ and the scale $g^{\sharp}, a^{\sharp}, b, c^{\sharp}, d^{\sharp}, e, f^{\sharp}, g^{\sharp} \dots$.

Vitezslav Novák and Josef Suk have continued the national school established by their predecessors but they belong properly to the modern period.

⁷ Alois Haba, *Neue Harmonielehre des diatonischen, Chromatischen, Viertel, Drittel, Sechstel, und Zwölftel Tonsystems* (Leipzig, Fr. Kistner and C. F. W. Siegel, 1927), p. 58.

THE MODES IN THE CONTEMPORARY PERIOD

IT HAS generally proved hazardous to theorize about a contemporary art. Such conclusions and estimates as may be made are almost invariably revised or superseded later. The original evaluations and their authors become fair game for succeeding generations of critics and historians whose greater enlightenment is not necessarily the result of keener discernment and whose confident opinions may in turn suffer the same fate. The process is as inevitable as it is necessary. He who proposes a hypothesis, hazards a first opinion, or makes a thoughtful observation establishes a point of departure for subsequent investigation, comment, and argument. He serves the advancement of knowledge as surely, if not so well, as he who establishes an ultimate truth. It is in this spirit that the following observations on the use of the harmonic modes in the contemporary period are made.

As was shown in the past several chapters, by 1900 the diatonic modes had been revived and their use had become quite general. Although the ecclesiastical plagals, dominants, and so on, had disappeared, the octave forms were identical with the ancient scales of the Church and the interchangeability which had previously been allowed between the Major and the Minor had been extended to include all the modes. The changes which had taken place were due to imposing major-minor techniques on all the other modes: the fifth had become the dominant of each scale even of the Locrian; the unprepared dissonances of the seventh and ninth were freely employed. Formerly modal writing was contrapuntal but the new concept was primarily harmonic. Briefly, these are the characteristics of the harmonic modes.

The romantic and nationalistic movements in France, Germany, Russia, Scandinavia, and Czechoslovakia may be credited with having simultaneously found new means of expression in the changed concept of the old scales. On the other hand, English composers of the period looked to Germany for leadership and were slow to grasp the significance of the new trend.¹ It was not until the influence of Debussy and Ravel was felt that modality began to be adopted, and, at about the same time, the English became aware of their wealth of modal folk song, and this, too, had a profound effect. Thus it may be said that nationalism came to British music simultaneously with impressionism. Evidences of both may be found in such works as *A London Symphony* (1914) and the *Pastoral Symphony* (1921) by Vaughan Williams. The nationalistic spirit predominates in certain other works whose titles betray their native background. In this class the following may be cited as examples:

Vaughan Williams: *Norfolk Rhapsody*; No. 1 (1906)—Aeolian and Dorian

Delius: *A Dance Rhapsody* (1909)—Lydian

Howells: *Lady Audrey's Suite* (1916)

1. "The Four Sleepy Golliwogs' Dance"—Dorian and Lydian
2. "The Little Girl and the Old Shepherd"—Phrygian
3. "Prayer Time"—Aeolian
4. "The Old Shepherd's Tale"—Aeolian

The *Quartet in A-Minor*, Op. 21, by Howells makes use of the Aeolian mode in the first two movements, whereas the third is Mixolydian. John Ireland exhibits a decided predilection for the Dorian mode,² but he has a varied style and is not confined to that one mode.³

¹ Some modality is found in Elgar's *Dream of Gerontius*, and the Chorus "God of Night." Stanford's oratorio *Eden* (1891) is pure Mixolydian, perhaps because of the use of "Sanctorum meritis" quoted from plain chant.

² For examples see Book One, pp. 36, 46, 81, 83, 89, and 101.

The following compositions are also Dorian:

The Land of Lost Content

1. "The Lent Lily"

The Bells of San Marie
Mother and Child

3. "Hope"

³ John Ireland:

The Adoration—Aeolian
Sonata for Piano

First movement—Aeolian

Concerto in E♭ for Piano

Finale—Mixolydian

Sacred music in England continues to be largely major-minor but three examples of modality in this field may be cited:

Whittaker: *Psalm CXXXIX*—Phrygian

Howells: *Mass in the Dorian Mode*

Wood: *The Passion of Our Lord* (according to St. Mark)

Hymn I—Phrygian

Hymn II—Mixolydian

Hymn V—Phrygian

Final Chorus—Phrygian

The generation of French composers whose work began just before the turn of the century inherited a well-developed modal technique from Saint-Saëns and Fauré. Although it would be a mistake to overemphasize the importance of modality in Debussy's music, he was quick to incorporate it as an integral part of the impressionist method. At one time or another he used every one of the modes with the possible exception of the Mixolydian. His use of the Locrian has already been discussed.⁴ The Dorian opening measures of *Pelléas et Mélisande* are well-known.⁵ The opera contains many other modal passages which contribute largely to the illusion of antiquity. The "Prélude" to the suite *Pour le Piano*, from which comes the following Aeolian example, is another work which employs several modes.

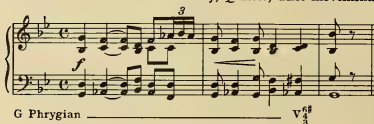
Debussy, *Pour le Piano*, Prélude,



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The first movement of the string quartet makes considerable use of the Phrygian mode. Note the "Phrygian-minor"⁶ V-I at the end of the following example.

Debussy, *Quartet*, First movement.



⁴ See chap. xiv.

⁶ An all-Dorian piece is "Pour invoquer Pan, dieu du vent

d'été" from *Six Epigraphes Antiques*.

⁵ For a discussion of this subject, see chap. xv.

In Chapter xiv, above, on the Locrian mode, it was suggested that Debussy's use of the Locrian is often mistaken for the whole-tone scale. A Lydian melody is likewise apt to be erroneously considered whole-tone.

Debussy, *Estampes*, No. 1, Pagodes.



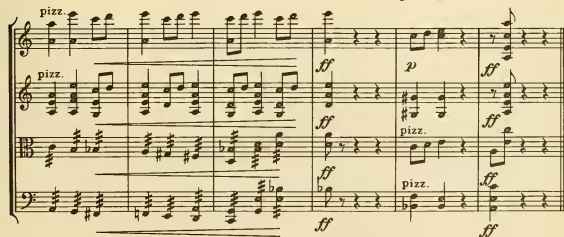
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Besides the traditional Major and Minor scales Ravel quite frequently uses Greek scales: the Dorian, Hypodorian, and occasionally the Phrygian also. That is to say that he resembles Debussy, without doubt because, like the author of *Pelléas*, he had at one time come strongly under the Russo-byzantine influence.⁷

The modality of Ravel does not all proceed from the Russo-Byzantine influence: *L'Heure Espagnole* contains much modality although the principle of interchangeability is employed with such freedom that the effect is quite kaleidoscopic from a modal standpoint. Scene 24 is somewhat less mercurial: it vacillates between Mixolydian and Phrygian. Scene 21 (a habañera) is Aeolian.

Most of Ravel's works contain some modality but the instances are often very brief. The string quartet exhibits this fragmentary treatment and in a form sufficiently clear for ready analysis. It is interesting to compare the final cadence of the second movement with the excerpt quoted above (p. 268) from Debussy's quartet: both may be called "Phrygian-minor" cadences.⁸

Ravel, *Quartet*, Second movement.



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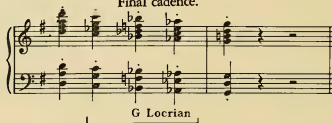
⁷ Alfredo Casella, "L'Harmonie," in the "Numéro Spécial [Maurice Ravel]," *La Revue Musicale* (April, 1925).

⁸ The Ravel example may also be compared to the "Phrygian-

minor" (Melodic form) from Respighi's *Belkis, Regina di Saba*, see above, p. 146.

Another striking final cadence is that of the first movement of the piano concerto.

Ravel, *Piano Concerto*, First movement.
Final cadence.



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Some of the more straightforward instances of modality in Ravel's compositions are:

Menuet Antique—Aeolian

Ma Mère l'Oye: "Pavane de la Belle au bois dormant"—Aeolian

Pavane pour une Infante Défunte:—Major, Phrygian, and Aeolian

Cinq Mélodies populaires grecques:

1. "Chanson de la Mariée"—Phrygian

Le Tombeau de Couperin:

Prélude—Aeolian

Fugue—Aeolian

Rigaudon—Aeolian

Trois Chansons:

"Ronde"—Lydian

Trio:

I. Beginning—Dorian

II. Beginning—Aeolian

III. Phrygian

Piano Concerto (1932):

III. Lydian

Pride of heritage, the instinct which engenders nationalism, when carried to extremes, sometimes contracts the cultural horizons to the point where the artistic impulse finds sufficient latitude within the narrow confines of a single district. In the field of music the phenomenon of regionalism has had several representatives. In France Déodat de Séverac and Guy Ropartz, both excellent composers, have devoted themselves to the idiom of their respective provinces, Languedoc and Brittany.⁹

De Séverac seems to have been somewhat didactic: he sometimes indicates the mode used. The "Danse de la Résurrection d'Adonis" in Act III of *Héliogabale* is labeled "*dans le mode 'Hindola'*," which proves to be identical with the Aeolian. In Scene 4 of the same act the music is "*dans le mode phrygien primitif*" which proves to be E-Dorian with *a* (the fourth degree) treated in the manner of a pseudodominant:

⁹ To a somewhat less extent Béla Bartók and Zoltán Kodály may be called regional composers. They have based their art on the true Magyar folk music which they themselves have painstakingly sifted out from the mixture of Slovak, Gypsy, Roumanian, and Hungarian music current in their native land. The music of Bartók, like that of Stravinsky, falls into no con-

ventional mold: for each piece a special idiom seems to have been invented and exhausted. Kodály's methods are less disparate. The following pieces are modal:

Kodály: *String Quartet*, Op. 2, I.—Aeolian; II.—Dorian.

Duo for Violin and Violoncello, Op. 7, I.—Dorian.

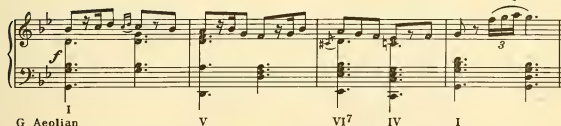
Bartók: *Tanz-Suite für Orchester*, II.—Dorian; III.—Aeolian.

De Sévérac, *Héliogabale*, Act III, scene 4.

E Dorian

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Much more typical of his style is the following excerpt.

De Sévérac, *Héliogabale*,
Act III, "Masquerade."

Modal passages from the works of de Sévérac and Ropartz may be found at the places indicated below.

De Sévérac:

Le Coeur du Moulin

Act II

Introduction—Aeolian

Final Chorus—Aeolian

Héliogabale

Prologue

Chorus of Christians—Aeolian

Act I

Introduction—Aeolian

Danse Lascive—Aeolian

Act II

Chorus of Acolytes—Mixolydian

Scene IV—Aeolian

Finale—Aeolian

Act III

Masquerade—Phrygian and Aeolian

Scene II, Introduction—Aeolian

"J'ai des musiques"—Aeolian

Ropartz:

Un Prélude Dominical et Six Pièces à Danser

IV. "Mercredi"—Mixolydian

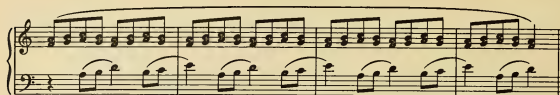
V. "Jeudi"—Phrygian

*Y'ver, sous n'estes qu'un villain—Aeolian**Prélude, Marine et Chansons*

II. "Marine"—Lydian

Satie's technique was highly personal but he was not without modal propensities. There are various evidences of this in *Socrate* which is practically all modal, and although the harmony is harsh, the modes are rather pure.

Satie, *Socrate*, III, Mort de Socrate.



D Dorian

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Gymnopédie No. 1, is Lydian and Dorian, No. 2, Mixolydian, and No. 3, Aeolian.

Most of the other recent French composers exhibit some modal tendencies: it may be truly said that modality is a part of the technical equipment of every composer and is used often but not exploited. Several examples of modality are:

Reynaldo Hahn:

La Reine de Sheba

"La Scène se passe dans le palais de Shelmô"—Locrian

Maurice Emmanuel:

Sonatine IV en divers modes Hindous: Adagio—Phrygian

Albert Roussel:

La Naissance de la Lyre

"On dirait qu'un rêve éclaire sa pensée"—Phrygian

Scene 8—Mixolydian

Francis Poulenc:

Les Biches (62) through (63)—Mixolydian

Valse for piano—Lydian

An interesting polymodal passage is found in *Mouvements Perpetuels*, No. 1 by the last-named composer. This passage is sometimes erroneously considered polytonal, but although the ear recognizes two simultaneous scale forms, it assimilates them through the common tonic B^b.

Poulenc, *Mouvements Perpetuels*, I.

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Despite the fact that Italy has always been ready to take up new ideas from other lands, she was slow to react to the revived interest in the diatonic modes. Not until the early years of the present century did Italian composers begin to make use of the new scale concept. The reasons for the delay are clear enough, although somewhat involved.

For centuries Italy's music has been unconsciously nationalistic: there seems to have been an unspoken conviction that the native artistic instinct was a surer guide to musical verity than any system of consciously evolved aesthetics. The correctness of the theory is borne out by the fact of the acceptances in other countries of Italy's leadership in matters artistic. Even when foreign ideas were imported they did not alter the basic traits of Italian music. Whether the influence was Flemish counterpoint, an attempted revival of Greek drama, or the Wagnerian *leit-motif*, the result has always been the same:

the new idea is assimilated so thoroughly that the characteristics of the Latin temperament are strongly reasserted and remain dominant.

The native cultural heritage could not be the source of fresh musical inspiration in Italy that it was in other countries, since Italian music had so long been nationalistic, however unconsciously. In the light of this it becomes quite understandable that the early efforts at the use of modal harmonies, which, it must be admitted, were somewhat crude, hardly tempted nineteenth-century Italian composers to abandon their polished musical speech.

By 1900, however, the situation had altered: in several countries modality had been developed to a point where it had become an important adjunct to the traditional major-minor system. Under these circumstances Italian composers reacted to the new influence, adopted the principle of interchangeability of mode, and soon evolved a modal style which is peculiarly their own.

The technical essentials of the modern Italian modal idiom may be summed up as follows:

- a.) Frequent long single or double pedals, or inverted pedals.
- b.) Single or double long-continuing ostinato figures.
- c.) Added tones (especially the sixth and second) and unresolved appoggiaturas.
- d.) Predominance of diatonism (comparatively little chromaticism).
- e.) Infrequent employment of the Minor mode.
- f.) Common-chord progressions.
- g.) Catenation of passages based on long pedals.
- h.) The virtual abandonment of the major-minor V^7-I cadence.
- i.) Writing in such a way that the melody rather than the harmony determines the tonality and mode.
- j.) Much reliance on figures of open fifths. (A possible source of this is the tuning of stringed instruments.)

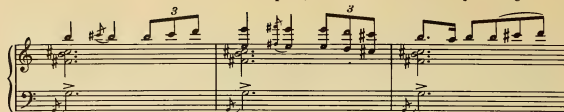
The characteristics mentioned above are illustrated by the following excerpts.

Malipiero, Il Canto della lontananza.

pp

C Dorian (Note long double pedal and added tones)

Aeolian

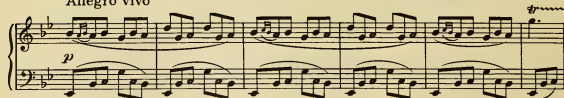
Malipiero, *La Mascherata della Principessa Prigioniera.*

G Lydian (Note long pedal and added tones)



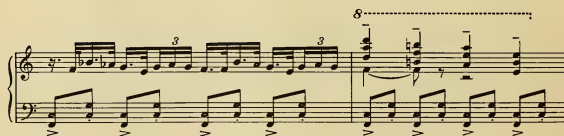
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Allegro vivo

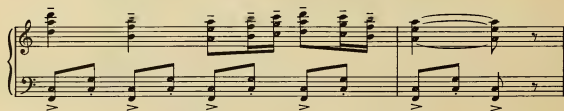
Respighi, *Belkis, Regina di Saba.*

Eb Lydian (Ostinato figure)

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Malipiero, *Sette Canzoni, "L'alba delle ceneri."*F Minor
(Note ostinato figure composed of open fifths)

F Lydian



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Respighi, *Quartetto dorico.*

E Aeolian (Note that the melody determines the tonality)
(Not C Lydian)



Major

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Malipiero, *La Principessa Ulalia.*

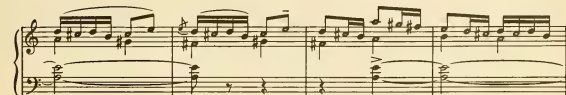
(Note progression by thirds)

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Malipiero, *Il finto Arlecchino.*

Lydian

D Major (Note catenation of long pedals)



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Major

Pizzetti, *Tre Canzoni per Canto e Quartetto d'Archî, I, "Donna Lombarda."*



C Phrygian (Seale as ostinato bass)



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Pizzetti, *Dèbora e Jaéle, Act III.*



C Locrian

V Pedal

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Of the several well-known composers of the Italian school Casella is the least predictable. Perhaps his eclecticism is due to his musical education at the Paris Conservatoire, but whatever the reason, he does not conform to the same pattern as his compatriots. Italo Montemezzi occasionally employs modal harmonies¹⁰ but he does not adopt them to any great extent. It is Pizzetti, Respighi, and Malipiero who have made the use of modality a prominent feature of their art. Respighi was consciously archaic in at least one work (*Concerto Gregoriano* for violin and orchestra) but with his modal harmonies (mainly Dorian) he used the dissonances of the seventh and ninth freely. The beginning of both the first and second movements of the *Concerto* suggest organum and discant. Pizzetti seems to have been influenced by sixteenth-century music although he has combined it with modern harmonic technique. It should be pointed out that he and Respighi use the Major and Minor considerably more than Malipiero. Seldom is the Minor mode found in the last composer's works. A number of instances of modality by Respighi, Pizzetti, and Malipiero are:

¹⁰ For instance there is a passage in C-Phrygian in *L'Amore dei Tre Re*, Act II, at the words (sung by Manfredo), "*Che dici tu? Chi dici? Morta ella? Non piu esistere?*"

Respighi:

Concerto Gregoriano

I.—Dorian

II.—Dorian

Pini di Roma

"Pini presso una catacomba"—Aeolian

Vetrate di Chiesa

I. "La fuga in Egitto"—Aeolian

III. "Il mattutino di Santa Chiara"—Aeolian

Metamorphoseon

Theme—Aeolian

Trittico Botticelliano

"L'Adorazione dei Magi"—Aeolian

Belkis, Regina di Saba

"Danza dell'Offerta"—Phrygian

Maria Egiziaca

II. "O bianco astore"—Aeolian

Pizzetti:

Quartetto per Archi

I. Lydian

II. 2nd variation—Aeolian

*I Pastori—Aeolian**La Madre al Figlio Lontano—Aeolian**Il Clefista Prigione—Dorian**Coro di Catecumeni di Cucutrice—Aeolian**La Pisanella*

Prologue

Scene 1 Prelude—Phrygian

Scene 2 L'Entremets—Aeolian

Act I

Scene 4 Prelude—Mixolydian

Sonata in Fa (cello and piano)

II.—Phrygian

III.—Aeolian and Phrygian

Sonata in La

I.—Phrygian

Débora e Jafle

Act II

Introduction—Dorian

Act III

Introduction—Phrygian

Alleluia—Phrygian

Messa di Requiem

"Requiem"—Major, Minor, and Aeolian

"Libera me"—Aeolian

Lo Straniero

Act I

Introduction—Dorian

Fra Gherardo

Act I

Scene 1—Chorus of Flagellants—Aeolian

Scene 2—Locrian and Phrygian

Act II, Chorus: "When the people of Parma"

Concerto dell'Estate

III. "Gagliarda e Finale"—Dorian

Introduzione all'Agemennone di Eschilo

1st Choral Episode—Lydian

2d Choral Episode—Dorian

Malipiero:

Poemetti Lunari

5.—Aeolian

Il canto della lontananza—Aeolian*Filomela e l'Infiatuato*

"Donne, che givan fior cogliendo"—Lydian

La Mascherata delle Principesse Prigioniere

Opening—Lydian

Rispetti e Strambotti

Verse I—Lydian

Verse II—Lydian

Verse IV—Lydian

Verse XII—Lydian

Il Finto Arlecchino

Don Trifonio's Poem—Aeolian

In Germany there has occurred a curious break in the course of modality. No one seems to have taken up the diatonic modes where Brahms left off. This can be accounted for partly by influence of Wagner-Strauss major-minor chromaticism, and partly by the twelve-tone system advocated by Schonberg. Hindemith is supposed to have been strongly influenced by the modes, and many passages bear this out.

Hindemith, *Das Marienleben*, "Argwohn Josephs."

The image shows three systems of musical notation for Hindemith's "Das Marienleben, Argwohn Josephs." Each system consists of a treble and bass staff. The first system is labeled "F Dorian" and "Aeolian". The second system is labeled "Dorian". The third system is also labeled "Dorian". The notation includes various musical symbols such as notes, rests, and dynamic markings like *p* and *brum*.

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But the examination of many of his published works suggests that Hindemith's musical language is the product of an exuberant empirical attitude which accepts limitations only after application of trial and error procedures.

Stravinsky is another composer whose creations bear witness to an indefatigable experimental zeal. He may be said to have applied the laboratory method to musical composition. His role as an innovator has at least as much significance as the purely musical worth of his product. Each new work seems to have been conceived in a different idiom. It may be said with considerable truth that Stravinsky's latest piece will have more influence on other writers than it will on himself. If the composer of *Le Sacre du Printemps* has since adopted more classical means of expression, it does not follow that he has become a conservative: the technical details have not become less complex with the renouncement of prodigality.

Since Stravinsky's art depends on continual revision of technique, it is not to be expected that modality will be present in his works as a constant. Furthermore, although the diatonic modes have had an undoubted effect they are seldom used in anything approaching a pure form.¹¹ The many modal passages in the *Symphonie de Psalms* are typical of Stravinsky's modal treatment.

Stravinsky, *Symphonie de Psalms*,
Last movement, Final cadence.

Al - le - lu - ia Lau - da - te, lau - da - te, lau - da - te, lau - da - te.

C Aeolian

Mixolydian

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The polymodal (Locrian-Phrygian) passage in *Oedipus Rex* is one of the most telling moments in the work.

Stravinsky, *Oedipus Rex*.

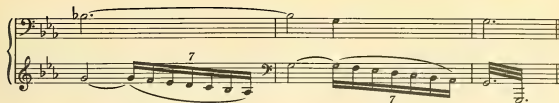
Orch.

G Phrygian

Locrian Phrygian

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¹¹ Exceptions are the little choral work *Ave Maria*, which is pure Phrygian, and "Ce qu'il a, le chat" from *Berceuses du Chat*, which is Mixolydian.



Scriabin and Prokofiev are of little significance in the history of the diatonic modes. Gretchaninov and Glazounov are the men who have continued the modal traditions of the Russian nationalist school. The *Liturgia Domestica* and the third symphony of Gretchaninov contain many modal passages, and the following instances may be indicated from the works of Glazounov.

Glazounov:

Moyen-Age Suite

I. Prélude—Aeolian

II. Sérénade du Troubadour—Aeolian

Le Kremlin

II. Dorian

II.—Dorian

Stenka Razin

Allegro con brio, Beginning—Dorian

Suite pour Quatuor d'archets

III. Orientale—Dorian and Mixolydian

Jour de Fête

I. Aeolian, Mixolydian, and Dorian

I.—Aeolian, Mixolydian, and Dorian

Esquisses Finnoises

I. Cortège solennel—Phrygian

Der König der Juden

I. Introduction—Aeolian

II. Gesang der Jüngen Jesu—Aeolian

VI. Zwischenakt—Phrygian and Aeolian

VII. Zwischenakt—Aeolian

VIII. Syrischer Tanz—Mixolydian

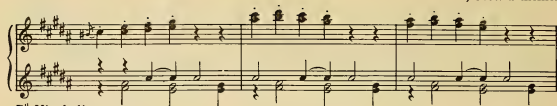
Jan Sibelius dominates Finnish music to such an extent that he has become a national institution. Strongly influenced by his country's native music, his musical speech has included modality from the earliest compositions to the latest. The following excerpts are from *Symphony No. 1*, which was written in 1899.

Sibelius, *Symphony No. 1*, First movement.

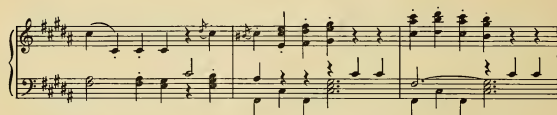
First theme.



E Aeolian

Ibid., Second theme.

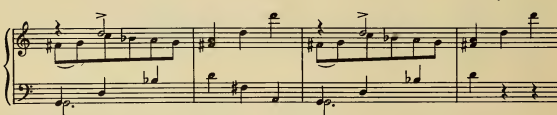
F# Mixolydian

*Ibid.*, Scherzo.

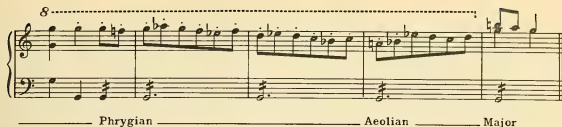
C Mixolydian

Phrygian

Major

Ibid., Scherzo.

G Minor



In a general way, the manner in which Sibelius employs the diatonic modes resembles Brahms' treatment, but there are several important differences. Brahms' modal passages have a more transitory character: the modal insertion is used for contrast, for commentary, for quaint or fanciful harmonic digression, and even for suggestion of the archaic, but almost always the modality is extrinsic. On the other hand, the modality in Sibelius' music is organic, a part of the basic conception. This fact is supported by the themes of the symphonies of the two composers. Whereas, with but one exception,¹² the themes of Brahms' symphonies are exclusively major-minor, the large orchestral works of the Finnish master include several which are modal. Four examples from the first symphony are quoted above. Others which may be cited are:

Symphony No. 2

I.—Aeolian

III. At 12/4 "Lento e suave"—Aeolian

Symphony No. 6

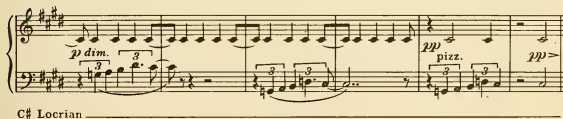
I.—Dorian

III.—Dorian

IV.—Aeolian

Sibelius also employed the modes with less restraint than did Brahms. Such passages as the following do not occur in the compositions of the German.

Sibelius, *Symphony No. 4*, Final cadence.



C# Locrian

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Besides the illustrations and citations¹⁸ already given, the following list shows the location of other modal passages.

Frühling schwindet eilig—Aeolian

Lemminkäinen zieht heimwärts—Aeolian

Pohjola's Tochter, Op. 49—Aeolian

Schwanenweiss, Op. 54

"Harfenspiel"—Aeolian

Nächtlicher Ritt und Sonnenaufgang, Op. 55—Aeolian

Scènes historiques

I. "All'Overture"—Lydian

¹² The theme of the second movement of the fourth symphony of Brahms is Phrygian. See above, p. 244.)

¹⁸ See the following pages for excerpts quoted in Book One, pp. 29, 31, 43, 71, 79, 93, 94, 106, 123, 145, and 147.

In this chapter on modality in the contemporary period, the discussion has been confined mainly to the leading composers. In many cases lesser writers make even more frequent use of the diatonic modes, but what they do is naturally of relatively less significance. It should be evident from the examples quoted that the modal activity begun in the last century has been increasing in recent years and the use of the complete system of diatonic scales [the Harmonic modes] is continuing vigorously and at present shows no signs of slackening. What the future may hold in the way of further development and evolution is a question to which no one can guess the answer.

Chapter XXXI

RECAPITULATION

ALTHOUGH THE development and theory of the Harmonic modes has been treated in some detail, a brief recapitulation in larger terms may throw the more important points into relief.

The basic scales of Western civilization are seven types which, from their character, are called the *diatonic modes*.¹ Through relation to these source scales, the scales and scale systems of the past 4,000 years are interrelated. The original Greek Dorian (E-e type) could be integrated with the Phrygian (D-d type), since the two were part of the basic seven; the Major scale (C-c type) and the Minor (A-a type) are likewise two integrated parts of the source scales. On the surface the major-minor scales of the last three hundred years seem to have little in common with the pair of ancient Greek scales mentioned above: the octave species are different, the *mese* theory bears little relationship to the highly organized theory of tonality, and the simple monodic song of the primitive Greek seems infinitely removed from the rich polyphony of Bach. Nevertheless, the two pairs of scales (major-minor and Greek Dorian-Phrygian) belong to the parent system and have a cultural relationship which transcends the disparate theories.

Although the basic scale aesthetic of our music is diatonic, the smaller intervals (chromatics) have always offered musicians a resource for varying and enriching the fundamental scales. The lure of the variety afforded by chromaticism eventually leads to such excesses that the native diatonism is sometimes threatened, but before it is obscured, reaction sets in and the basic diatonism is strongly reasserted. Within recorded history there have been three distinct cycles of the process: chromaticism has three times risen to a point where it almost overwhelmed the essential diatony. But each time the pendulum has swung in the opposite direction and the use of chromaticism diminished. With the return to simple means after the prodigalities of the *Enharmonic* and *Chromatic genera*, ancient Greek music completed the first cycle. The second was finished early in the seventeenth century when major-minor homophonic simplicity replaced *musica ficta* and polyphony, and when it became apparent that composers were not going to follow the extravagances of Gesualdo. Signs that the third cycle was almost complete began to be noticeable at the end of the last century with the reaction against the chromaticism of Wagner and Franck. The revival of the diatonic modes was begun by the founders of the several national schools and was completed by their immediate successors. The pioneering process was concluded just before the turn of the century (1890-1900) and by that decade the Harmonic modes may be said to have been fully realized. That is not to say that no advances have been made since. On the contrary, development has been remarkably rapid. In the past half century there has been a great deal of activity: revolt against romanticism; impressionism; jazz and blues; polytonality, polymodality, and atonality; linear counterpoint; neoclassicism; neoromanticism, etc. Despite continuing interest in the twelve-tone system, there is discernible today a trend toward simpler tonal means largely based on the Harmonic modes.

The theory and practice of the Harmonic modes derive in large measure from the theory and practice of the major-minor system with the exception that the *clausula vera* is no longer the only acceptable form of the dominant cadence. In point of fact, all during the twentieth century there has been a strong reaction against the major-minor dominant seventh; most composers have felt that it was the worst of clichés and avoided it at all costs.

¹ Because of the significance to Western civilization, the seven basic diatonic modes may be compared in a general way, to the Indo-European family of languages. The analogy should not be carried too far, since it is probable that the diatonic

modes are indigenous ethnologically to the Indo-European sub-families speaking the *centum* languages (Greeks, Italians, Celts, and Teutons), and not to those of the *satem* group (Indo-Iranian, Armenian, Albanian, and Balto-Slavic).

A concise statement in general terms of the theory of the Harmonic modes may be useful. This formulation has been deduced from the actual practice of the past century.

1. The Harmonic modes are eight in number: Lydian, Mixolydian, Major, Dorian, Aeolian, Phrygian, Locrian, and Minor.

2. The concept of tonality formerly included only the Major and the Minor but now encompasses all eight scales, even the Locrian. Modal tonality is weaker, perhaps, but that is no longer thought undesirable by a musical world which considers banal those conventions of the major-minor system upon which strength of tonality depends.

3. The principle of interchangeability of all eight modes without change of tonality derives directly from the major-minor practice of interchangeability between these two. Through this principle all the semitones of the octave have a prime relationship to the tonic, making for great melodic and harmonic freedom without modulation. On the other hand, the process of modulation is simplified and made smoother through the fact that the two tonalities involved (the old and the new) have more tones in common.

4. The principle that the strongest harmonic progressions are between those chords whose roots form intervals of fourths and fifths continues in the practice of the Harmonic modes.

5. The dominant of each mode is the fifth degree of the scale and the dominant cadence is an unaltered V-I progression for all the modes, even the Phrygian and Locrian.

6. All harmonic configurations of the major-minor system are transferred intact to the Harmonic modes. Not only are the unprepared dissonances of the seventh and ninth used freely, but also added tones, unresolved appoggiaturas, and chords in fourths.

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